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AGRICULTURAL GROWTH PROGRAM - AGRIBUSINESS AND MARKET DEVELOPMENT (AGP-AMDE) PROJECT

USAID TASK ORDER AID #663-TO-11-00003

THIRD QUARTERLY REPORT
APRIL 1 – JUNE 30, 2012

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ACRONYMS

AEMFI	Association of Ethiopian Micro Finance Institutions
AESE	Ethiopian Agricultural Economics Society
AGP	Agricultural Growth Program
AGP-AMDe	Agricultural Growth Program – Agribusiness and Market Development
ARC	Agricultural Research Center
ATA	Agricultural Transformation Agency
B2B	Business to Business
BCC	Behavior Change and Communications
CAADP	Comprehensive Africa Agriculture Development Programme
CCA	Competitiveness constraints analysis
CQI	Coffee Quality Institute
CSA	Central Statistics Agency
DA	Development Agent
DCA	Development Credit Authority
EAB	Ethiopian Apiculture Board
EAFCA	Eastern African Fine Coffees Association
EBA	Ethiopian Beekeepers Association
ECEA	Ethiopian Coffee Exporters Association
ECX	Ethiopian Commodity Exchange
EHBPEA	Ethiopian Honey and Beeswax Producers and Exporters Association
EIAR	Ethiopian Institute for Agricultural Research
EPOSPEA	Ethiopian Pulses, Oil Seeds and Spices Processors and Exporters Association
ESE	Ethiopian Seed Enterprise
ETHIOSIS	Ethiopian Soil Information System
FCA	Federal Cooperative Agency
FCU	Farmer Cooperative Unions
FTF	Feed the Future
GAP	Good Agricultural Practices
GIS	Geographic Information System
GoE	Government of Ethiopia
Ha	Hectare
HQ	Headquarters
HIV/AIDS	Human immunodeficiency virus/acquired immunodeficiency syndrome
ICARDA	International Center for Agricultural Research in the Dry Areas
ICT	Information and Communication Technology
IFC	International Finance Corporation
IFDC	International Fertilizer Development Center
IFPRI	International Food Policy Research Institute
JMA	John Mellor & Associates
M3	Money, Membership, and Management
M&E	Monitoring and evaluation
MFI	Microfinance institution
MoA	Ministry of Agriculture
MoT	Ministry of Trade
MOU	Memorandum of Understanding
MT	Metric tons
NGO	Nongovernmental organization
NRM	Natural resources management
P4P	Purchase for Progress

PERSUAP	Pesticide Evaluation Report & Safe Use Action Plan
PMP	Performance Monitoring Plan
PPP	Public–private partnership
SACCO	Savings and credit cooperatives
SMFM	Sell More For More
SNNPR	Southern Nation Nationalities People Region
SOW	Scope of work
Sr.	Senior
STTA	Short-term technical assistance
TA	Technical assistance
TMPMF	Tigray Mulitpurpose Marketing Federation
ToH	Taste of Harvest
ToT	Training of trainers
USAID	U.S. Agency for International Development
WFP	World Food Programme
VC	Value chain

EXECUTIVE SUMMARY

Agricultural Growth Program – Agribusiness and Market Development (AGP-AMDe) is the flagship project under USAID's Feed the Future (FTF) Strategy for Ethiopia and is USAID's largest contribution to the government of Ethiopia's (GoE) Agricultural Growth Program (AGP). AGP supports the Comprehensive African Agricultural Development Program (CAADP) framework by strengthening agricultural productivity and markets in the high rainfall regions of Amhara; Oromia; Southern Nations, Nationalities, and People's Region (SNNPR); and Tigray.

In line with the overall objectives of AGP, AGP-AMDe works to sustainably reduce poverty and hunger by improving the productivity and competitiveness of value chains that offer jobs and income opportunities for rural households. Target value chains are maize, wheat, sesame, coffee, honey and chickpeas. Highlights of activities and results achieved during the reporting quarter for the target value chains include the following:

***Wheat*—**Through a series of negotiations, AGP-AMDe facilitated the sale of 9,000 quintals of wheat from the Sekomando and Raya Wakana farmers cooperative unions (FCUs) in the Oromia Region to Ambo Multipurpose flour milling plant. The miller needs up to 300 quintals per day for its flour processing needs, and the parties signed a memorandum of understanding (MOU) to facilitate increased forward purchasing of wheat from the FCUs.

***Maize*—**During the quarter, AGP-AMDe made significant progress in its partnership with the World Food Program (WFP) under the Purchase for Progress (P4P) program to facilitate the contractual delivery of at least 15,000 MT of maize from FCUs to P4P through June 2013. The project provided technical assistance to seven maize FCUs in developing and submitting their supply plans to meet WFP sales requirements. In total, the FCUs have agreed to deliver approximately 16,680 MT of quality maize over a span of eight successive weeks starting in March 2013. WFP also made the commitment to transport the maize from the FCUs and cooperatives to the warehouses for storage.

***Sesame*—**The project value chain team and rural finance team worked with Setit Humera, Dansha Aurora, Selam and Metema FCUs to develop business to secure financing from the Commercial Bank of Ethiopia for the construction of five warehouses of 5,000 MT capacity. ACDI/VOCA will provide 50 percent of the total investment in the warehouses as part of the Innovation Grant Fund, and the FCUs will finance the remaining 50 percent by securing bank loans, which AGP-AMDe is facilitating. The FCUs will also explore similar business plans by the FCUs and Commercial Bank of Ethiopia to finance clearing machines.

***Coffee*—**During this reporting period, the project coordinated a highly interactive marketing event designed especially for specialty coffee roasters and buyers during the Specialty Coffee Association of America (SCAA) Annual Conference and Trade Show. AGP-AMDe continued the long-term project effort to improve the Ethiopian Commodity Exchange's (ECX's) Coffee Standards and Grading Protocols by conducting an evaluation of the current ECX arrival grading protocols, beta testing potential changes to ECX grading protocols, and making definitive recommendations for updates to the system. The team also conducted extensive focus group discussions with 16 representatives from exporters, farmer groups, industry associations, government and NGO groups on how they view market conditions, export climate, future sales, current inventories and business environments, the ECX model, future strategies, the IDH initiative, Geocert, investment initiatives and the upcoming AGP-AMDe exporters workshop in Y2. AGP-AMDe also concluded part two of advanced cupper training by offering Q Calibration testing for Ethiopian Q Graders.

***Honey*—**AGP-AMDe partnered with the Ethiopian Apiculture Board (EAB) to facilitate the certification of the Ethiopian honey industry for export to the EU market. AGP-AMDe provided technical assistance to EAB to conduct honey sample collection in all regions, laboratory testing by a lab in Kampala, Uganda, and the preparation of the certification report for EU submission. The EU will respond to the certification request in the next quarter. The team contracted also two honey industry experts to assess bee product production, diversification, marketing, processing, and packaging in Ethiopia, and to devise project strategies and actions to improve competitiveness in these areas along the honey value chain.

***Chickpea*—**AGP-AMDe developed and introduced a chickpea manual that was used for delivering two five-day trainings to cooperative officials, Development Agents (Das), and AGP regional focal persons in Becho (170 participants) and Gondor (80 participants). The trainings inform value chain stakeholders on the process of chickpea production and marketing activities for this crop season and ensure appropriate support for the farmers and FCUs. As an immediate follow-up to the trainings, AGP-AMDe worked with three of the FCUs to prepare grant requests for facilitating access to improved seed. The grant investment structure is based on a 50 percent cost sharing commitment from grantees. The seed will be provided on credit to farmers in the following quarter in order to secure marketing output that will be later cleaned, stored and exported for increased profits to the FCUs.

Other highlights from the April 1 – June 30, 2012 period include:

***Component 2: Improving Access to Finance*—**The Access to Finance team organized a meeting of 21 top microfinance institutions and 31 agribusiness professionals in Ethiopia to facilitate potential investment deals. As a result, the Becho-Weliso FCU linked with John Deere equipment leasing company and developed an action plan on exploring leasing options for chickpea production technologies.

***Component 3: Improving the Enabling Environment of Selected Value Chains*—**In June, AGP-AMDe organized a major conference on enabling environment issues in the fertilizer value chain. The conference brought together 60 key public and private sector actors, including state ministers, senior government advisors, representatives of the Agricultural Transformation Agency (ATA) and the heads of regional agriculture bureaus, in addition to cooperative managers, private traders and international donors. The conference, at which attendees discussed critical issues in achieving a high growth rate in fertilizer use, was part of a strategy to strengthen the capacity of the leaders in the Ministry of Agriculture and provided an important step in achieving appropriate policy changes.

***Component 4: Stimulating Increased Innovation and Investment*—**After USAID's approval of the Grants Manual during the quarter, AGP-AMDe proceeded rigorously with roll out of requests for proposals for priority investments in the maize, sesame, and chickpea value chains, as outlined above. The team worked with applicants to develop business plans, as part of the grant applications, and identified three FCUs in the chickpea value chain as subgrantees to facilitate access to improved seed and output financing.

***Monitoring and Evaluation (M&E)*—**The M&E team completed the AGP-AMDe baseline survey and data entry by the May 31 deadline. After sharing preliminary findings with USAID for feedback, AGP-AMDe is validating the results against data from the AGP baseline, conducted separately by the International Food Policy Research Institute (IFPRI). AGP-AMDe will submit the final baseline in the next quarter, along with the final M&E plan and Performance Management Plan (PMP) with targets, and present findings to USAID.

Gender— As a result of the consultation on gender held last quarter, and in line with the strategy of increasing women's membership and leadership in cooperatives, AGP-AMDe is working to develop gender integration opportunities in the garden coffee area of the coffee value chain. The project gender team is shifting focus group efforts towards development of a clear strategy in garden coffee with emphasis on the dominant role of women in that sector. The Sr. Gender Specialist also provided technical guidance to three FCUs in the chickpea value chain for developing gender inclusive business plans for increased women's membership and leadership in cooperatives, as part of the FCU grant applications under Component 4.

PROGRAM SUMMARY

AGP-AMDe Background

USAID has joined the GoE, the World Bank (as lead donor) and other donors in developing the AGP goals, which also align with the FTF goal to "sustainably reduce poverty and hunger." AGP-AMDe is part of USAID's commitment to join and leverage this program and support a country-led initiative for agricultural growth. The objective of AGP-AMDe is in line with the overall objective of AGP and can be summarized in the following vision statement: *Work to sustainably reduce poverty and hunger by improving the productivity and competitiveness of value chains that offer jobs and income opportunities for rural households.*

In Amharic, AMD means "centerpiece," reflecting the fact that this component is the centerpiece of AGP. The project acronym, AMDe (pronounced "AHMD") means "the pillar of my home"—a fitting portrayal of what AGP-AMDe hopes to be in Ethiopia's endeavors to bring about lasting solutions to the challenge of poverty.

AGP-AMDe Value Chains

The AGP-AMDe initiative in Ethiopia uses a value chain approach to increase the competitiveness of select agricultural products, enhance access to finance, and stimulate innovation and private sector investment. Targeted value chains are wheat, maize, sesame, chickpeas, coffee and honey. Ethiopia is identified among the top 10 producers in Africa for each of the AGP-AMDe target value chains. For several of these crops, Ethiopia is famed not only for the quantities produced, for but the product characteristics that are unique to the country.

Unfortunately, these comparative advantages are not currently being exploited to the benefit of the country and its smallholder producers. Value chain products are produced inefficiently and sold locally and/or exported as agricultural raw materials to commodity markets, rather than as semi-processed or finished consumer goods, which have relatively higher and more stable prices. The AGP-AMDe team works in coordination with AGP, cooperatives and unions, private processors and other partners to transform *comparative* advantages into *competitive* advantages.

AGP-AMDe Components

The project is strengthening agricultural productivity and markets in the high rainfall regions of Amhara, Oromia, SNNPR and Tigray. The project has four primary components, the first of which, as the largest component in the program, contains three intervention areas:

- Component I: Improving the Competitiveness of Selected Value Chains
    - Intervention I: Enhance Marketing and Market Linkages
    - Intervention II: Assist Transformation of Cooperatives/Unions, Private Sector Associations and Agro-Dealers to Become Effective Service Providers
    - Intervention III: Increase Reliable and Commercial Access to Improved Inputs and Farm Technology
- Component 2: Improving Access to Finance
- Component 3: Improving the Enabling Environment of Selected Value Chains
- Component 4: Stimulating Increased Innovation and Investment

AGP-AMDe Operating Principles

In implementation, AGP-AMDe seeks to leverage prior experience, learning and proven strategies in agricultural marketing, productivity and value chain projects. In so doing, we:

- leverage investments of GoE, donors and the private sector
- build in flexibility to respond to new opportunities and changing condition
- reduce the risks of upgrading for the poor by using small "riskable" steps
- ensure results by applying a learning cycle of piloting, evaluating and adjusting intervention design
- rely on market facilitation wherever possible, rather than direct provision
- facilitate learning among value chain actors
- foster public-private partnerships that result in investment
- address environmental stewardship, conservation and climate change
- improve gender equity at all levels of the value chain and across all project components

AGP-AMDe Implementation Team

ACDI/VOCA, as the prime contractor and lead organization of the implementation team, is the technical lead for the project. Consortium partners are listed below.

- **International Fertilizer Development Center (IFDC)** brings its extensive experience in the development of commercial agro-input systems to address constraints in this area.
- **John Mellor & Associates (JMA)** assists with the enabling environment component and provides technical assistance (TA) on agriculture policy reform.
- **Danya** is providing a strategic communications plan to guide AGP-AMDe's use of communication tactics to increase behavior change, promote technology adoption, facilitate learning and increase overall project outcomes.
- **Kimetrica** brings its ki-projects™ platform to strengthen the monitoring and evaluation (M&E) system.
- **Coffee Quality Institute (CQI)** is delivering targeted technical support to develop the coffee value chain.
- **Crown Agents** provides demand-driven TA to improve transport and logistical efficiency.

AGP-AMDe Key Strategic Partners

AGP-AMDe also partners with a number of key, strategic bodies in implementation, including:

- The AGP Secretariat at the Federal and Regional Levels
- The Agricultural Transformation Agency
- The Ethiopian Commodity Exchange
- The Federal Cooperative Agency
- The Ministry of Agriculture (MoA)
- The Ministry of Trade (MoT)

AGP-AMDe Results

AGP-AMDe will result in benefits to over one million smallholder producers. Gross margins for these farmers will double and losses will be dramatically reduced. AGP-AMDe will make a significant and lasting contribution to the agricultural transformation of Ethiopia and the reduction of poverty and food insecurity in 83 woredas.

COMPONENT I: IMPROVING THE COMPETITIVENESS OF SELECTED VALUE CHAINS

Component 1 seeks to increase the competitiveness of value chains and the productivity of actors all along the chains, including large numbers of smallholders, commercial farmers, traders, agro-processors and exporters. This component also contributes to food security by improving the availability of food through value chain development.

INPUT SUPPLY ANALYSIS

During this quarter, implementation focused on activities aimed at improving the competitiveness of selected value chains through increases in input use. To date, subcontractor IFDC has collected a total of 300 soil samples and supplied the samples to regional soil laboratories in Ethiopia. Additionally, IFDC sent 82 soil samples (Oromia 30, Amhara 30, SNNPR 20 and Tigray 2) to Crop Nutrition Lab Services in Nairobi, Kenya for analysis. The soil results were distributed to stakeholders, including MoA, ATA, Research Centers, soil labs, and regional Ministry of Agriculture offices. An additional 19 soil samples were sent to Nairobi in June for further analysis. The results of these tests are being used to inform the protocols disseminated by the MoA for the correct application of fertilizer and inclusion of inputs for the Ethiopian Soil Information System (ETHIOSIS).

To support AGP-AMDe's intervention of increasing access to improved fertilizers, IFDC conducted an estimation of multi-nutrient fertilizer needs for the development of demonstration sites, and facilitated importation of micro-nutrient fertilizers (25 kg of Canadian corn mix and 25 kg of cotton soya bean) and purchased 4.5 quintals of DAP and 5 quintals of UREA locally. The MoA also provided four quintals of Yara Milla fertilizer for the demonstrations. Through the end of the quarter, 58 field demonstrations have been conducted: 15 in Oromia, 13 in Amhara, 10 in SNNPR and 20 in Tigray. The purpose of these demonstration sites is to promote the improved productivity and economic advantages of using fertilizer to introduce new and improved nutrients other than DAP and UREA. AGP-AMDe based selection of the sites on results from soil testing activities, and the sites are shared across four value chain crops: wheat, maize, sesame and chickpeas. AGP-AMDe oversees implementation of the market linkage demonstrations in partnership with the MoA. The demonstration site protocol was developed in collaboration with the MoA and approved by the national committee who oversees demonstration activities in Ethiopia.

IFDC began conducting 58 field demonstrations with planting of maize seed across the four AGP regions (Oromia 15, Amhara 13, SNNPR 10 and Tigray 20). In total, the team distributed 488 kg of improved seed varieties to these market linkage demonstration sites. AGP-AMDe will provide ongoing technical training and assistance to these sites.

M3 SURVEY OBSERVATIONS

The M3 process:

During the third quarter of FY 2012, AGP-AMDe carried out Membership, Management and Money (M3) institutional investigations with FCUs across the six target value chains. The sample of 42 FCUs surveyed comprises a representational qualitative sampling of the AGP-AMDe target groups. The sample surveyed includes six value chains and covers all four geographic regions with a reasonable

distribution: Amhara (13), Oromia (12), SNNP (11), and Tigray (6). The 42 umbrella organizations surveyed include over 1,500 member cooperatives and nearly 1.4 million individual members.

The M3 assessment is in itself an institutional strengthening activity, described as a participatory survey for assessing capacity and identifying development priorities for groups, associations and cooperatives. During a half-day meeting, the AGP-AMDe team introduces the project and its objectives, while engaging the group in a constructive management dialogue to gather basic information as to contacts, officers, institutional history and strategic priorities, and to identify the relative progress of the FCU in three vital institutional areas:

- Membership: Service orientation toward members, including recruitment and member participation in institutional management decisions;
- Management: Legal status and documentation, strategy and observance of standard operating procedures; and
- Money: Accounting, audits, financial management, profitability and record-keeping.

M3 Survey Results Utility:

The M3 process involved AGP-AMDe representatives and the FCU management teams in an iterative discussion to identify the degree of progress on a number of program components indicative of an organization's progress on the three components: Membership, Management and Money. Objective proxy measures of institutional development were used to derive the category scores. A similar M3 process at intervals in the future will measure objectively institutional progress.

The M3 survey results will greatly facilitate the identification of strategic investments needed for key value chain stakeholders to participate in AGP-AMDe's innovation grants program in the coming months. The M3 data accelerates the grant process by populating many of the information fields required for grant applications (leadership and contact information, membership numbers by gender, last audit, etc.).

The M3 engagement also served to help the farmer organization clarify its own institutional strategic priorities such as improved storage, milling or cleaning equipment upgrades. As one FCU representative noted at the conclusion of the first M3 meeting, "You didn't just identify the areas of strengths and weakness of our group; you helped us identify a strategy for where we need to go next to be stronger."

General M3 Survey Observations:

On a scale of 0-4 (0: Lowest; 4: Highest) in the three M3 categories of the 42 surveyed FCUs, average scores by value chain range 2.35-3.34 and suggest relatively healthy FCUs with which AGP-AMDe can target specific program support. Value chain average M3 scores ranked in descending order by value chain are: coffee, sesame, maize, wheat, chickpea and honey.

Table 1: Average M3 Scores for FCUs in Target Value Chains

	M3 Scores				
	FCUs	**Membership**	**Management**	**Money**	**Average**
Maize	8	3.06	3.03	3.52	**3.19**
Wheat	12	3.01	3.03	3.17	**3.06**
Chickpea	6	2.79	2.93	3.22	**2.98**

		M3 Scores			
Sesame	6	2.92	3.13	3.10	**3.22**
Coffee	6	3.10	3.43	3.49	**3.34**
Honey	4	2.42	2.27	2.38	**2.35**
	42				

Coffee, maize and wheat all scored above 3.0 in all three M3 categories, suggesting relatively robust umbrella organizations, serving farmers responsibly and successfully in the targeted sectors. The sampled FCUs in coffee, maize and wheat value chains represent 1,300 affiliated cooperatives which serve over 1.2 million individual members.

Coffee scored highest among the six value chains in the categories of Membership and Management, while in the Money category, maize scores the highest (slightly above coffee). Five value chains (all but honey) scored above 3.0 in the Money category, suggesting relatively strong fiscal management among AGP-AMDe targeted FCUs. This measure of responsible financial performance bodes well for the AGP-AMDe grant program engaging institutions in these targeted value chains for shared investment in key upgrades. The honey value chain scored lowest in all three M3 categories.

These value chain institutional measures, highs and lows, are consistent with what we know anecdotally of these value chains and their markets. The coffee value chain is commercially developed and organized into dedicated cooperatives and umbrella unions. The honey sector, on the other hand, is fragmented, largely undeveloped in value-addition, and serviced largely through multi-purpose groups, also consistent with market and trade performance.

WHEAT VALUE CHAIN

Background

Ethiopia is Africa's second largest producer of wheat after South Africa. Production volumes and land area sown under wheat have been increasing annually. It is estimated that between 2001 and 2008, total national production volumes increased by almost 50 percent; however average yields per hectare remain low by international standards. Wheat production, by almost 4.3 million smallholders across Ethiopia, remains subsistence-based with little surplus available for downstream utilization. A significant amount (20 percent for cereals) is lost due to post-harvest handling and storage problems. Due to production shortfalls, Ethiopia complements its domestic production by importing wheat. Annual imports are projected to grow, given the rise in demand for wheat-based products.

Vision and Strategy

A VISION FOR CHANGE

AGP-AMDe's vision for the wheat value chain is for Ethiopia to become self-sufficient in wheat production by the end of five years.

In order for Ethiopia to achieve this result, it will require, *inter alia*, doubling current productivity from average yields of 20-25 quintals per hectare to 40-50 quintals per hectare, reducing post-harvest losses from their current average of 20 percent to less than 10 percent, and increasing the volume of high-quality wheat made available to the industrial sector to 800,000 MT per year. End-market

analysis has indicated that to achieve self-sufficiency will require stronger private–public partnerships with government research centers, cooperatives and private sector agro-business.

Activities during the Quarter

Intervention I: Enhance Marketing and Market Linkages

Through a series of negotiations, AGP-AMDe facilitated the sale of 9,000 quintals of wheat from the Sekomando and Raya Wakana FCUs in the Oromia region to Ambo Multipurpose flour milling plant. The miller needs up to 300 quintals per day for its flour processing needs, and the parties signed an MOU to facilitate increased forward purchasing of wheat from the FCUs.

AGP-AMDe organized supply chain assessments of three millers the Tigray region to determine specific quality and quantity requirements for sourcing wheat from regional FCUs. The value chain team will use the results of these assessments to assist FCUs such as Secomando, Galema, Raya, Wakana, Gozamen, Damot, Lecha, and Erer in negotiating delivery terms with millers for quantity, quality, timing & forward contract terms during the next quarter.

Intervention II: Assist Transformation of Cooperatives/Unions, Private Sector Associations and Agro-Dealers to Become Effective Service Providers

The 12 wheat FCUs that participated in the M3 assessments reach nearly 500 partner cooperatives in all four of Ethiopia's regions comprising over 425,000 individual members. The wheat value chain has a very solid "M3 Average" rating of 3.06 suggesting overall institutional strength among the surveyed FCUs, and robust commercial functionality in the sector. Most of the surveyed FCUs (9 of 12) were established between 1998 and 2004. Except for two newer, smaller FCUs, the surveyed organizations extend fairly broad service coverage, each incorporating between 23 and 81 participating cooperatives in 4-10 woredas. The Damot wheat FCU in Amhara reaches the largest membership among surveyed wheat FCUs, at 71,000 farmers in 10 woredas. Damot averaged 3.2 overall and was assessed a 3.5 in the M3 Money category. Eleven of the twelve surveyed FCUs underwent financial audits in 2010 or 2011.

Table 2: M3 Scores for Wheat Value Chain

Wheat value chain M3 scores:	**3.06**	**Average**		
Membership range:	**2.75**	**Low**	**3.25**	**High**
Management range:	**2.80**	**Low**	**3.30**	**High**
Money range:	**2.75**	**Low**	**3.50**	**High**

The post-harvest and handling team conducted trainings in the four regions in the key wheat producing areas. About 40 actors in the wheat value chain were trained in each region. The training included business management, marketing, postharvest handling practices and warehouse management skills.

Intervention III: Increase Reliable and Commercial Access to Improved Inputs and Farm Technology

In order to facilitate access and availability of improved seed varieties, AGP-AMDe signed an MOU with Morrell Agro Industries, PLC to conduct market linkage demonstrations of the lowland wheat variety with partner FCUs in the Oromia, Tigray and Amhara regions. Morrell will distribute the seed to the FCUs to begin planting by mid-July, and will provide technical assistance in coordination with AGP-AMDe throughout the demonstration process.

Components / Activities	Potential Partners	Estimated output for Year I	Target Beneficiaries Disaggregated by Region						Year-to-Date Actual	Percentage of Target Achieved YTD	Comments
			Target	Oromia	SNNPR	Amhara	Tigray	Addis Ababa			
Component 1: Improving the Competitiveness of Selected Value Chains											
Intervention I: Enhance Marketing and Market Linkages											
Activity 1: Improve Marketing Systems and Practices											
1.1: Identify selected millers requiring higher quantities and quality of locally produced wheat	DH Geda, KOJJ	Miller Assessment	2	2					9	450	
1.1.1: Assess quality and quantity requirements for selected bread flour millers											
1.1.2: Assess quality and quantity requirements for pasta flour millers & processors	Kality Foods, Lem Lem		3	2			1		2	67	
1.2: Identify selected millers requiring assistance to fortify product - with consortium partners	General Mills, Technoserve								4		4 flour millers identified in April
1.2.1: Complete plan with partners to implement fortification initiative											
1.2.2: Complete investment and sourcing plan with millers participating in fortification											
1.2.3: Installation and training of fortification equipment for Y2	General Mills	Mills adopting fortification	3	3							AGP-AMDe will be working in consultation with General Mills in Q4 to facilitate installation of fortification equipment for Y2.
1.2.4: Design and launch a nutritional information campaign for fortified flour products		Multi-media nutrition campaign									
Activity 2: Demonstrate Specific Market Linkages											

2.1: Link cooperative unions and traders to millers requiring supply of local wheat, bread type	DH Geda, KOJJ	Cooperatives linked to Millers	3	3					2	67	
2.1.1: Assist unions in negotiating delivery terms with millers for quantity, quality, timing & forward contract terms									2		In the reporting period 10 FCUs were identified and 2 of them are linked with Ambo wheat processor.
2.1.2: Assist unions in sourcing supply of seed for production and multiplication, rust-resistant varieties											Three seed multiplying unions identified and one of them has submitted business plan for financing.
2.1.3: Determine financing requirements for the union to supply inputs & for purchase of harvested crop									6		Financial need assessment identified for 6 FCUs, strategies (grant, linking with banks) developed.
2.1.4: Arrange financing for inputs and/or output for contracted wheat deliveries		No. of Loans Arranged	3	2			1				In process.
2.2: Link cooperative unions and traders to millers requiring supply of local wheat, pasta type	Kality Foods, Lem Lem	Cooperatives linked to Millers	2	1			1		0	0	AGP-AMDe is working with millers requiring pasta type wheat to determine quantity and quality requirements for Q4
2.2.1: Assist unions in negotiating delivery terms with millers for quantity, quality, timing & forward contract terms											The process began in Q3 and will continue in Q4. AGP-AMDe is providing guidance to the unions (9) to develop supply plans to facilitate the linkage with the millers for Q4.
2.2.2: Assist unions in sourcing supply of seed for production and multiplication											In process, the unions have already been identified and the sources of seed are being finalized for Q4.
2.2.3: Determine financing requirements for the union to supply inputs & for purchase of harvested crop											In process, the unions have already been identified and the sources of financing are being explored for Q4.
2.2.4: Arrange financing for inputs and/or output for contracted wheat deliveries		No. of loans arranged	2	1			1		0	0	

2.3: Link cooperative unions and consumer unions in Addis Ababa	Secomendo, Galema, raya wakana, Gozamen	Cooperatives linked to consumer unions	2	2					11	550	11 consumers associations have been identified and linkage establishment is in process
2.3.1: Assist unions in negotiating delivery terms with unions for quantity, quality, timing & forward contracts											
2.3.2: Assist unions in sourcing supply of seed for production and multiplication											
2.3.3: Determine financing requirements for the union to supply inputs & for purchase of harvested crop											
2.3.4: Arrange financing for inputs and/or output for contracted wheat deliveries		Loans arranged	2	2					0	0	
Intervention II: Assist Transformation of Coops/Unions, Private Agribusinesses and Associations to Become Effective Service Providers											
Activity 1: Strengthen co-ops and FCUs											
1.1: Conduct M-3 assessments of cooperative partners	Secomendo, Galema, Raya Wakana, Gozamen	Completed M3 Assessments	7	6			1		10	143	
1.1.1: Management & Leadership											
1.1.2: Membership & Services	Damot, Lecha, Erer, BDS Providers, FCA										
1.1.3: Accounting & Finance											
1.1.4: Marketing, Service, Contracts											
1.1.5: Physical Facilities & Equipment											
1.1.6: Findings, Recommendations, Planning											

1.2: Conduct SMFM business training at the selected union and primary cooperative levels.	Secomendo, Galema, Raya Wakana, Gozamen, Damot, Lecha, Ere, BDS providers, FCA										
1.2.1: Management , Leadership, Gender											
1.2.2: Post-Harvest Handling											
1.2.2: Nutrition	AGP Coordinators										
1.2.3: Business Management Skills	AGP, FCA, Secomando, Galema, Raya, Wakana, Gozamen, Damot, Lecha, Erer										These activities will be conducted in the next quarter along with other VCs.
1.2.4. Record keeping	AGP, FCA, Secomando, Galema, Raya, Wakana, Gozamen, Damot, Lecha, Erer, Saving and Credit Associations										
1.2.5. Marketing, Contracts, Sourcing											
Activity 2: Introduce effective post-harvest handling that reduces loss											

2.1. Introduce mechanical harvesting at selected cooperatives; use of combine harvesters	AGP, FCA, Secomendo, Galema, Raya, Wakana, Gozamen, Damot, Lecha, Erer, equipment suppliers	No. of Cooperatives adopting	3	3					3	100	Sensitization work on plot threshers was carried out in all FCUs, which will be demonstrated next quarter.
2.1.1. Determine demand for combine harvesting for each union's area; construct enterprise plan & budget											
2.1.2. Identify appropriate business for each cooperative, in terms of leasing, owning, and operating											
2.1.3. Assist in arrangement of financing for purchase or lease of equipment, identify application for grant	AGP, FCA, FCUs, equipment supplier, DCA Bank	Harvesters Financed	6	6					7	117	
Activity 3: Assist private sector associations and facilitate stakeholder collaboration											
3.1. Conduct sensitization workshop on Durum wheat with FCUs, private sector, research institute, GoE buyers, processors	Secomendo, Galema, Raya Wakana, Gozamen, Damot, Lecha, Erer	Number of trainings	1	1					0	0	This activity will be conducted by EIAR; it has been delayed until next quarter because of EIAR's conflicting time schedule.
Intervention III. Increase reliable and commercial access to improved inputs & farm technology											
Activity 1: Expanded and reliable access to improved seed											
1.1. Provide TA to build capacity of Kulmsa ARC, Debre Zeit ARC, Regional ARIs	AGP Focal persons, EIAR, Kulumsa, Debre Zeit, Sinana and Adet ARC's, Regional Seed Enterprises	Volume of basic wheat seed produced increased by 20% for Y2									This activity will be realized by fourth quarter of Y1, but the MOU has recently been signed.

1.2. Provide financial assistance to build the capacity of the seed production centers to increase availability of basic seed. Preliminary assessment indicates requirements of 4 ARC plot threshers, solar driers, small-scale irrigation facility for off-season pre basic and basic seed multiplication, digital moisture meters, test kits, seed stores etc. Regional seed enterprises require seed cleaning machines and seed storage facilities. South seed enterprise requires a laboratory.	AGP Focal persons, EIAR, Kulumsa, Debre Zeit, Sinana and Adet ARC's, Regional Seed Enterprises	No. of ARC's assisted	4	3		1			0	0	
1.3. Provide technical support in seed warehouse/storage and management facilities to primary co-op/unions, regional seed enterprises and organized private wheat seed growers		Seed firms assisted in warehouse management	2	1		1			10	500	
1.4. Conduct assessment of business using M3 tool; determine needs for ware house and management											
1.5. Complete plan for investment in storage and handling systems, and management requirements		Plans completed	4	3		1			3	75	The assessment on cooperatives was done in Q3 and 3 FCUs have already submitted business plans. AGP-AMDe is evaluating plans for facilitating investments in Q4.
1.6. Link firms to sources of financing, including application for AMDe innovation funds		Applications completed	3	3					0	0	Proposal developed and ready to be submitted for 3 FCUs.
1.7. Expand output and distribution of drought resistant wheat varieties introduced by Morrell Agriculture	Morrell										Demo sites selected and the seed will be delivered by Morrell in the next quarter.
1.8. Complete MOU between Morrell Agriculture and AGP-AMDe			1						1	100	

1.8.1. Identify geographic areas most suitable for Morrell varieties and identify cooperating partners											27 sites identified; 18 in Oromia, 4 in Amhara, 2 in SNNPR and 3 in Tigray
1.8.2. Select cooperatives or producer groups for seed multiplication and demonstration trials											Done on FTC and farmers' fields
1.8.3. Conduct assessment of business using M3 tool; determine the union or cooperative's ability to multiply and distribute seed											The M3 assessment was completed for wheat10 FCUs
1.8.4. Assist cooperatives in negotiating contract with Morrell for seed distribution		Contracts Executed	2	2							AGP-AMDe is facilitating execution of the final contracts between the cooperatives and Morrell for early in the next quarter.
Activity 2: Improved distribution of inputs and farm technology											
2.1. Conduct wheat variety & fertility demonstrations at selected sites, led by cooperative unions		Number of Demo sites	7	3	1	2	1		14	100	Demonstration sites have been established and soil samples taken and analyzed.
2.1.1. Demo sites identified & samples taken									14	100	
2.1.2. Training to cooperatives, DAs and ARC lab technicians on soil sampling techniques											
2.1.3. ToT in soil sampling											
2.1.4. Sample results analysed & recommendations made for wheat fertilization											See section above on Input Supply for details of soil samples and analysis completed.
2.1.5. Select seed varieties to be planted in the demonstration											
2.1.6. Review demo protocols with cooperatives and other collaborators											IFDC collaborated with MoA to establish approved demo protocols with participating

											cooperatives.
2.1.7. Establish demo plots at selected sites									14	100	

MAIZE VALUE CHAIN

Background

Ethiopia is Africa's third largest producer of maize. It is the most widely produced crop in Ethiopia in terms of numbers of households involved in its production, the number of hectares planted and volume of quintals produced per hectare. Maize plays a critical part in Ethiopian food security, providing approximately 20 percent of caloric intake. Despite its agronomic significance, the maize market continues to be dominated by a large number of small, localized transactions, trading a poor quality product in the months immediately after it is harvested. A relatively small proportion of total maize produced is consumed by urban-based end-market consumers manufacturing human or animal feed products, although this proportion is increasing as both value-added maize-based products and the dairy industry are developing. Presently maize prices are approaching import parity levels due to structural failures in the market and the high cost of transporting maize within the country.

Vision and Strategy

A VISION FOR CHANGE

AGP-AMDe's vision for the maize value chain is to increase the volume and quality of maize to meet demand in the expanding domestic and potential regional exports markets.

To realize this vision, AGP-AMDe is contributing to and complementing AGP strategies to accelerate the development of the maize sector through a series of interconnected activities, including the following:

- Working with input suppliers to increase availability and supply of fertilizer and improved seed.
- Creating a clear role for cooperatives in the maize value chain and provide the necessary tools for them to be effective.
- Catalyzing the growth of latent demand in end markets, such as the processed food and feed industries.
- Fostering the emergence of strong, licensed traders to stabilize the market through appropriate regulatory structures and initiatives in collaboration with ECX.
- Defining a clear and transparent role for government in maize markets, gradually shifting away from *ad hoc* stabilization efforts.
- Improving storage management practices and equipment on- and off-farm.
- Continuing efforts to improve market information flows.
- Improving farm management practices of complementary crops.

Activities during the Quarter

Intervention I: Enhance Marketing and Market Linkages

During the quarter, AGP-AMDe made significant progress in its partnership with the WFP under the Purchase for Progress program to facilitate the contractual delivery of at least15,000 MT of maize from FCUs to P4P through June 2013. As a result of AGP-AMDe facilitation, all seven of the selected maize FCUs signed an MOU that committed them to selling their product to WFP, and WFP agreed to buy 16,680 MT of quality maize with a guaranteed minimum floor price of 391 Birr per quintal.

The project also provided technical assistance to seven maize FCUs in developing and submitting their supply plans to meet WFP sales requirements. In total, the FCUs have agreed to deliver

approximately 16,680 MT of quality maize over a span of eight successive weeks starting in March 2013. WFP also made the commitment to transport the maize from the FCUs and cooperatives to the warehouses for storage. The planned volume of maize supply from each FCU is shown in the table below.

Table 3: Maize Supply by FCU for WFP P4P (in MT)

Region	FCU	PCs	Maize Supply Quantity in MT in 2013								
			April				May				Total
			1st	2nd	3rd	4th	1st	2nd	3rd	4th	
1. SNNPR	1.1 Sidama Elso	23	250	250	250	250	250	250	250	250	2,000
	1.2 Admas	13	410	410	410	410	410	410	410	410	3,280
	1.3 Licha Hadya	34	250	250	250	250	250	250	250	250	2,000
	Total	70	910	910	910	910	910	910	910	910	7,280
2. Oromia	Gibe Didesa FCU	50	175	175	175	175	175	175	175	175	1,400
3. Amara	3.1 Gozamin	16	250	250	250	250	250	250	250	250	2,000
	3.2 Damot	15	375	375	375	375	375	375	375	375	3,000
	3.3 Merkeb	17	375	375	375	375	375	375	375	375	3,000
	Total	48	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	8,000
Grand total		168	2,085	2,085	2,085	2,085	2,085	2,085	2,085	2,085	16,680

Intervention II: Assist Transformation of Cooperatives/Unions, Private Sector Associations and Agro-Dealers to Become Effective Service Providers

The project worked with these seven FCUs to develop business plans to request financing from the Commercial Bank of Ethiopia for purchase of outputs and investment in warehouse facilities. The plans will be completed in the next quarter.

The maize value chain has a very solid "M3 Average" rating of 3.19 suggesting overall institutional strength among the eight surveyed FCUs, and at least commercial functionality in the sector. The eight maize FCUs surveyed, which includes the seven participating the WFP P4P scheme and one not selected to participate in the P4P scheme, reach over 500 partner cooperatives in three regions comprising over 500,000 individual members. All eight surveyed FCUs were registered between 2000 and 2004 and hence are well established. Their membership includes between 34 and 118 participating cooperatives and each extends into 7-15 woredas. The M3 category scores of Membership, Management and Money for maize are uniformly strong. The Money category range (3.38-3.63) sets maize apart from the other value chains as the top-rated for money and fiscal responsibility. Six of the eight surveyed maize FCUs completed audits last year. One maize FCU, Merkeb in Amhara, serves 175,000 individual members through 96 affiliated cooperatives in 11 woredas. Merkeb scored 3.13 or above in all three M3 categories, achieving an average of 3.28.

Table 4: M3 Scores for Maize Value Chain

Maize value chain M3 scores:	**3.19**	**Average**		
Membership range:	2.63	Low	3.38	High
Management range:	2.60	Low	3.20	High

Money range:	3.38	Low	3.63	High

In Amhara, AGP-AMDe conducted training of trainers to 40 MoA extension workers on business management, marketing, postharvest handling practices and warehouse management skills. Seven participants were female. These training of trainer sessions align with AGP-AMDe's *Sell More for More* training methodology, and will allow sustainable provision of technical training for transformation of cooperatives, unions, and other agribusinesses to become effective service providers.

Intervention III: Increase Reliable and Commercial Access to Improved Inputs and Farm Technology

AGP-AMDe provided ongoing technical assistance to the Ethiopian Institute for Agricultural Research (EIAR) in its development of a five-year plan to produce breeder and pre-basic maize seeds in regional research centers sufficient to supply projected demand. With project assistance, EIAR developed resource and financial plans to support the investment and working capital necessary to meet the five-year requirements. AGP-AMDe is exploring the possibility of linking EIAR's maize-related interventions with the project's Innovation and Demonstration Fund.

Additional interventions in improved maize seed during the quarter included the establishment of demonstration plots for improved maize varieties in three regions: 5 sites in SNNPR; 9 sites in Amhara and 5 sites in Oromia. Project partner IFDC is leading these market linkage demonstrations to facilitate adoption of the improved seed and collaborating with input suppliers to facilitate increased availability of the improved seed.

Components / Activities	Potential Partners	Estimated Output for Year I	Target Beneficiaries Disaggregated by region						Year to date Actual	Percentage of Target Achieved YTD	Comments
			Target	Oromia	SNNPR	Amhara	Tigray	Addis Ababa			
Component 1: Improving the Competitiveness of Selected Value Chains											
Intervention I: Enhance Marketing and Marketing Linkages											
Activity 1 - Improve Marketing Systems and Practices											
1.1: Identify selected millers requiring higher quantities and quality of locally produced wheat; open discussions with WFP about requirements for 2012	Kality, Akaki, Alema Farm, Mojo Feed Plant	Millers Identified	4	3	1				4	100	Done
1.1.1: Identify quality and quantity requirements for selected maize millers for commercial markets	Kality, Akaki, Alema Farm, Mojo Feed Plant WFP	Quantities Identified									Done
1.1.2: Conduct assessment of milling firms; management, financial systems, physical facilities, grading, handling, processing equipment; determine areas of potential investment which will enhance efficiency, product quality and ability to procure maize from FCUs and primary cooperatives.	Kality, Akaki, Alema Farm and Modjo feed processing plan	Assessment Completed	3	2	1				4	133	Done
1.1.3: Identify quality and quantity requirements for animal feed plants	Mojo Feed Plant										Done

1.1.4: Conduct assessment of management, financial systems, physical facilities, grading, handling, processing equipment; determine areas of potential investment which will enhance efficiency, product quality and ability to procure maize from FCU's and primary cooperatives.	Mojo Feed Plant	Assessment Completed	1	1					0	0	The feed plant has been approached and it requires further investigation next quarter.
1.1.5: Conduct assessment of green maize market opportunities, constraints; determine business approaches for women, youth via the CIGs and other producer groups structures to establish viable seasonal enterprises	AGP	Assessment Completed									The assessment was done.
1.2: FCUs linked to buyers. Identify and link potential buyers with FCUs; determine best B2B linkage based on geography, buyer requirements, business compatibility.	FCUs: Damot, Bedele, Sidama, Gibe Tedessa	FCUs identified	3	1	1	1			7	233	Agreement was done and contract signed.
1.2.1: Link cooperative unions to millers; conduct introductory meetings with millers and FCUs											
1.2.2: Assist unions in negotiating delivery terms with millers for quantity, quality, timing & forward contract terms; obtain signed contract or commitment letter	FCU's: Damot, Bedele, Sidama, Gibe Tedessa	Signed contract or letter of commitment	3	1	1	1			0	0	This activity has been delayed b/c it has to be linked with EIAR and hence pushed. Agreement with EIAR has just recently been signed and other related activities will be done after that.
1.2.3: Assist unions in sourcing supply of seed for production and multiplication; link to seed firms	ESE, Reg. Seed Co.s, Private Seed Co.s										
1.2.4: Determine financing requirements for union to supply inputs & for purchase of harvested crop											

1,2,5: Arrange financing for inputs and/or output for contracted wheat deliveries: complete financing/loan agreement		Agreements Completed	2	1	1						
1.3: Link cooperative unions and traders to WFP; review supply and quality requirements of WFP with unions; determine quantity that can be supplied through each union; determine need for inputs and financing requirement	FCU's: Damot, Bedele, Sidama, Gibe Tedessa, WFP, ATA	Assessment; Total quantity target	16,680 MT								
1.3.1: Assist unions in negotiating delivery terms with millers for quantity, quality, timing & forward contract terms; obtain signed contract or commitment letter	ATA, WFP	Contracts or commitments signed	3	2	1				3	100	
1.3.2: Assist unions in sourcing supply of seed for production and multiplication	Regional Seed Enterprise , Private Seed Co.										
1.3.3.: Determine financing requirements for the union to supply inputs & for purchase of harvested crop	ATA, WFP										The link has been created with WFP and signed agreement.
1.3.4: Arrange financing for inputs and/or output for contracted wheat deliveries	Commercial Banks, CBE	Loan or financing agreements signed	2	1	1				0	0	
1.3.5: Conduct workshop with unions in preparing the post-harvest handling requirements for the WFP contract: grading, cleaning, storage, bagging and fumigation; identify needs for investment and supply procurement	FCU's: Damot, Bedele, Sidama, Gibe Tedessa, WFP, ATA	Workshops completed	2	1	1				0	0	This activity will take place next quarter; the agreement has to come first with WFP and training has been given and workshop to be organized.
Intervention II: Assist Transformation of Coops/Unions, Private Agribusinesses and Associations to Become Effective Service Providers											
Activity 1: Strengthen Cooperatives and FCUs											

1.1: Conduct M3 assessments with 10 FCUs		Assessments Completed	10	4	3	3			7	70	
1.1.1: Management & Leadership											
1.1.2: Membership & Services	FCU's: Damot, Bedele, Sidama, Gibe Tedessa; FCA										Seven done and the other three will continue in the next quarter due to time constraint.
1.1.3: Accounting & Finance											
1.1.4: Marketing, Service, Contracts											
1.1.5: Physical Facilities & Equipment											
1.1.6: Findings, Recommendations & Planning											
1.2: Conduct business training at the selected union and primary cooperative (SMFM) levels	Cooperative Unions, FCA	Training	10	4	3	3			2	20	
1.2.1: Management & Leadership											
1.2.2.: Post-Harvest Handling; include training on ECX grading and quality specifications	Cooperative Unions, FCA, ECX										The training has been given to 2 FCUs and for the rest it will continue for Q4.
1.2.3: Nutrition	Cooperative Unions, FCA										
1.2.4: Business Management Skills											

1.2.5: Record Keeping											
1.2.6: Marketing, Contracts, Sourcing											
1.2.7: Complete investment and financing plan for post-harvest and storage investments at the union and primary levels to accommodate efficient maize handling (storage, cleaning, grading, packaging), and marketing											
Activity 2: Assist Private Sector Associations and Facilitate Stakeholder Collaboration											
2.1: Assessments to strengthen public sector agencies, such as Marketing Directorate, Agricultural Investment Directorate; Animal and Plant Health Regulatory Directorate; regional marketing agencies and regional development bodies—build capacity to participate in and support the implementation of the key value chain strengthening activities.	Associations and Directorates	Assessment	4	2	1	1					Next quarter plan
2.1.1: Design of sensitization and experience sharing workshops for value chain and agribusiness development; engage and train BDS provider		Program Design	1						0	0	This activity will follow sequentially after others outlined above in next quarter.
Intervention III: Increase Reliable and Commercial Access to Improved Inputs and Farm Technology											
Activity 1 - Expand Reliable Access to Improved Seed											
1.1 Assist research centers and businesses to increase production and distribution of seed.											
1.1.1: EIAR Collaboration**.** Analyze five years certified maize seed demand for AGP woredas and request EIAR for 120 MT maize foundation seeds.	EIAR, APG	Analysis	1	1					1	100	Done

1.1.2: Assist EIAR in development of a 5-year plan to produce breeder and pre-basic maize seeds in regional research centers sufficient to supply projected demand. Develop resource and financial plan to support investment and working capital necessary to meet 5-year requirements. Advise on Innovation Grant process.	5 Centers	Plans Completed	5	3	1	1			5	100	Done
1.1.3: Research Center Collaboration. Assist Centers in identifying necessary investments in equipment, technology, expertise; identify operating requirements for research centers (Bako, Ambo, Worer, Adet and Hawassa) before the 2012 growing season.	Bako, Ambo, Worer, Adet, Hawassa	Assessment	5	3	1	1			0	0	
1.1.4: Advise on grant application for foundation seed production; estimate requirements of matching contributions	Bako, Ambo, Worer, Adet, Hawassa										To be effected next quarter after finishing the assessment
1.2: Facilitate Private sector Multiplication. Identify potential certified seed growers from private seed companies, regional seed enterprises, and capable FCUs, which can grow and supply certified seeds to AGP woreda maize growers. Link producers to FCU's and strongest and private seed distributors; introduce contractual process.	FCUs, Pioneer, Hadiya etc	Seed Growers Identified									Done
1.3: Link producers to FCU's and seed distributors; assist in negotiating contracts for supply of seed											Next quarter plan
1.4: Assist seed growers in selecting varieties which are most marketable, assist in accessing foundation seeds.		Seed growers assisted	11	5	2	2	2		0	0	The identification was done for the 11 seed growers; now EIAR must complete the foundation seed activity, this activity for Q4

1.5: Assist promotion & demonstration activities to increase the utilization of improved planting materials. (Certified maize seeds). Train FCUs and private seed distributors on demonstration plot establishment.		FCU's & Seed Distributors trained	54	18	18	18					
1.5.1: Demo sites Identified & soil samples taken	FCUs, Seed Co.'s , FCA	Sites Identified									
1.5.2: Sample results analyzed & recommendations made for maize fertilization											
1.5.3: Select and order seed varieties to be planted in the demonstrations											Done
1.5.4: Review demo protocols with Cooperatives and other collaborators; establish consensus											
1.5.5: Establish demonstration plots.											
1.6: Conduct assessment of technical and financial requirements of cooperatives/unions, private seed companies and commercial seed farmers for expansion and upgrading seed multiplication business (e.g. lab equipment, seed grading, seed cleaning equipment, processing plants, etc .) to increase the volume of certified maize seed supply. Use M3 tool for FCU assessment, where applicable.	FCUs, Pioneer, Hadiya etc	Assessment	7	3	2	2			7	100	M3 assessment completed
1.6.1: Complete business and financial plans for upgrading capacity.	Cooperative, Seed Co.'s, Farms	Plans Completed									Scheduled for Q4

COFFEE VALUE CHAIN

Background

Coffee is the country's largest hard currency-earning industry. Ethiopia produced 400,000 MT of coffee in 2010/2011, and exported 196,000 MT, representing 3 percent of global exports. Despite Ethiopia's reputation as being one of the world's top producers of quality coffees, prices received are currently below similar qualities coming from other markets. The main reason for this price discounting is the current lack of confidence amongst international buyers that they will receive the grade of coffee actually paid for. This has been further complicated by the introduction of the ECX, through which over 85 percent of Ethiopia's coffee is now exported. Given the many domestic origins and quality levels of coffee that are recognized internationally, it is a very complex commodity to trade within an exchange. Lack of traceability and poor quality control issues occurring under the ECX's administration has exacerbated the price discounting situation.

Overall Vision and Strategy

A VISION FOR CHANGE

AGP-AMDe's vision for the coffee value chain is to maximize commercial returns for unique Ethiopian coffees in export markets.

AGP-AMDe is implementing a strategy concentrating on three main areas of intervention:

1) In collaboration with AGP partners and coffee cooperative unions, tackling low productivity and poor quality control at the smallholder level;
2) Working in collaboration with the ECX and key coffee stakeholders to simplify the current coffee standards and grading system to arrive at a leaner, more efficient, quality-focused system that will help ensure higher prices on export markets; and
3) Implementing activities to raise stakeholders' awareness of international market opportunities for the superior coffee produced in Ethiopia currently not being realized.

AGP-AMDe is providing focused support for women in the coffee sector, enabling them to increase their contribution as coffee producers, processors, exporters and business service providers. In addition, AGP-AMDe works to increase the number of women Q cuppers in Ethiopia.

Activities during the Quarter

Intervention I: Enhance Marketing and Market Linkages

SCAA Annual Conference and Trade Show

During this reporting period, the project partnered with the Ethiopian Coffee Exports Association (ECEA) during the SCAA Annual Conference and Trade Show in Portland, Oregon to showcase a highly interactive marketing event designed especially for specialty coffee roasters and buyers during the SCAA Trade Show. The ECEA hosted a marketing booth at the SCAA conference, which is an extremely important and well attended US coffee industry event. AGP-AMDe Coffee Value Chain Specialist Desse Nure of CQI spent the three days of the conference promoting Ethiopia's coffees to the 10,000 conference attendees. He also worked closely with CQI consultant Willem Boot on highly unique and interactive coffee cupping sessions held simultaneously with the conference. Mr. Boot and his team set up a

temporary cupping tent close to the SCAA Conference. Invitations were sent out prior to the event to invite specialty coffee roasters and buyers to participate in cupping unique Ethiopian coffees. In total, 121 cuppers from six countries attended the six cupping sessions. During each cupping session, 14 coffees were cupped using SCAA cupping standards.

In total, 39 Ethiopian coffee samples were collected, roasted and cupped during this event. During the cupping sessions, participants filled out a score sheet and had the opportunity to review the names of coffee exports and producers associated with each coffee. The coffees cupped represent 1.2 million pounds of green beans with the potential direct sales of at least $4 million. By the end of the event, at least two full containers of coffee had been purchased, with other orders pending administrative details and sample approvals. A YouTube video of this event can be found at http://www.youtube.com/watch?v=iFr0MQLncBA&feature=youtu.be

Ethiopian Commodity Exchange

AGP-AMDe continued the long-term project effort to positively affect the Ethiopian Commodity Exchange's Coffee Standards and Grading Protocols. During phase two of this ongoing initiative to review, evaluate and suggest potential restructures for EXC grading of Ethiopian coffees, CQI consultants Mr. K.C. O'Keefe and Mr. Aaron de Lazzer reviewed and evaluated the current ECX arrival grading protocols, beta tested potential changes to ECX grading protocols, and made definitive recommendations for updates to the system. Mr. O'Keefe prepared a detailed report on his findings (Annex I). This field study revealed the need for the ECX to implement ongoing measurable methods of evaluating the grading accuracy of the ECX system, and an unhealthy dependence on CQI's "Q program" as the only metric for calibration and oversight of ECX coffee graders. The report also found a legacy of coffee grading decisions being influenced on information other than isolated blind assessments. AGP-AMDe will use this report as a working document to assist ECX with system-wide upgrades to their current methods of grading green coffee.

Stakeholder Meetings

The team conducted extensive meetings with Ethiopian exporters and value chain participants to develop long-term strategies to improve the coffee value chain. CQI consultant Mr. Willem Boot met with 16 key Ethiopian coffee industry stakeholders to discuss export strategy development. These meetings were conducted in an informal manner, with the goal to discuss specific suggestions and observations of the coffee industry affected by the AGP-AMDe project. Mr. Boot's report provides details about how Ethiopia's exporters, farmer groups, industry players, government and NGO groups view market conditions and export climate; future sales, current inventories and business environments; the ECX model; future strategies; IDH initiative; Geocert, other investment initiatives and; the fall AGP exporters workshop.

Q Grading

As part of CQI's Q Coffee Program which trains, tests and licenses professional Q Graders to grade coffee, each professional Q Grader must pass rigorous, standardized calibration tests in order to renew their license every 36 months. AGP-AMDe concluded part two of advanced cupper training by offering Q Calibration testing for Ethiopia's 91 Q Graders. Out of the planned 51 Q graders, 35 took the course and 27 passed the test, of which 3 were women. The project team also inspected each laboratory the Q Graders worked in for lab-readiness to grade coffee and/or eventual SCAA certification, and worked with ECX on in-country partner training.

Table 5: Results of CQI's Q Grader Calibration Testing

Training Date	# of participating Q Graders	# of Q Graders who passed Calibration , which resulted in renewal of their Q License	# of Q Graders who failed Calibration, which resulted in their Q License expiring.
March 2012	52	37	15
June 2012	35	27	8
Totals	87	64	23
Note: Out of the 91 Q Graders in Ethiopia, three did not participate in either calibration training. This brings the total number of Ethiopia Q Graders with expired Q Licenses to 26.			

Intervention II: Assist Transformation of Cooperatives/Unions, Private Sector Associations and Agro-Dealers to Become Effective Service Providers

The 6 coffee FCUs surveyed through M3 reach nearly 300 partner cooperatives in Ethiopia's Oromia and SNNP regions comprising nearly 250,000 individual members. The coffee value chain has a very solid "M3 Average" rating of 3.34 suggesting overall institutional strength among the surveyed FCUs, and robust commercial functionality in the sector. The age of the surveyed coffee FCU varies; one was established in 1968 while another was established as recently as 2004. As the coffee sector is so developed in Ethiopia, it comes as no surprise that the coffee value chain scored the highest average (3.34) among the six surveyed. The M3 category scores of Membership, Management and Money for the coffee value chain are uniformly solid. Four of the five reporting coffee FCUs completed financial audits in 2010 or 2011. One coffee organization, the Oromia FCU, reaches nearly 200 producer cooperatives and has the largest membership among all 42 surveyed FCUs, at nearly 200,000 farmers in 60 woredas. The Oromia FCU scored a 3.6 in the M3 Money category as well as an average score of 3.6 across all three M3 categories.

Table 6: M3 Scores for Coffee Value Chain

Coffee value chain M3 scores:	3.34	Average		
Membership range:	2.75	Low	3.38	High
Management range:	2.80	Low	3.70	High
Money range:	3.25	Low	3.70	High

Intervention III: Increase Reliable and Commercial Access to Improved Inputs and Farm Technology

The Jimma Research Center is the only institution that produces high yielding and disease resistance coffee seed varieties in Ethiopia. During the quarter, AGP-AMDe assessed the seed volume production potential at Jimma Research Center, and determined that the capacity of seed production was not more than 150 quintals of Coffee Berry Disease (CBD) resistant variety and 30 quintals of the specialty coffee types. In order to facilitate increased production to 200 quintals (33 percent of overall

national demand) and the specialty types to 50 quintals (66 percent of overall national demand) AGP-AMDe is working with Jimma to improve their management and technical operations. The project is also exploring the possibility of upgrading technologies such as cold storage for seed preservation through the Innovation and Demonstration Fund.

Components / Activities	Potential Partners	Estimated Output for Year I	Target Beneficiaries Disaggregated by Region						Year to date Actual	Percentage of target achieved YTD	Comments
			Target	Oromia	SNNPR	Amhara	Tigray	Addis Ababa			
Component 1: Improving the Competitiveness of Selected Value Chains											
Intervention I: Enhance Marketing and Market Linkages											
Activity 1: Improve Marketing Systems and Practices											
1.1: Conduct regional coffee quality profiling	MOA,, Regional Agricultural Office, Coffee Co- op Unions	Number of samples on which raw analysis and organolyptic analysis is conducted	20	10	10				0	0	This activity has been shifted to year two to better coincide with coffee crop cycle.
1.1.1 Select AGP & adjacent woredas(20) collect 3 samples of 1kg from each woreda or cooperatives											
1.1.2 Conduct raw & organoleptic analysis in Addis ECX lab											
1.2: Conduct ECX labs certification	Jima Research Center (JRC), ECX , CQI	Number of labs certified	3	1	1			1	0	33%	The lab certification process was initiated with Jima, and the activity will be finalized in September
1.3: Develop mirror ISO standards for coffee and a new grading system on modern physical inspection and sensory evaluation; hold international scientific forum during EAFCA conference for review	MoA, MoTI, Ethiopian Standards Authority, ECX, CLU	Number of stakeholders meeting and conference conducted. Concept paper developed.	3					3	1	33%	
1.4: Provide Q cupping skills training	Coffee Co-op Unions, CLU,		15						35	233%	

1.4.1 Introduce & provide training on Q System & certification course for Direct Selling Techniques and ECX based exporters.	ECX, SCAA, Ethiopian Coffee Exporters Assoc, and Ethiopian Coffee Growers, Processors & Exporters Assoc	Number of trainees involved in the training									
1.4.2 Hold ToT course for advanced Q Graders & provide training & calibration courses for senior cuppers											
1.3: Conduct SMFM business training at the selected union and primary cooperative levels.	BDS Providers, FCA	Number of SMFM Training Series provided	2	1	1				0	0	To be conducted in Q4
1.3.1 Management , Leadership, Gender	AGP Coordinators, FCA, FCU										
1.3.2 Post-Harvest Handling											
1.3.3 Nutrition	AGP Coordinators										
1.3.4 Business Management Skills	AGP, FCA, FCU's										
1.3.5 Record Keeping	AGP, FCA, FCU's, Savings & Credit Associations										
1.3.6 Marketing, Contracts, Sourcing	AGP, FCA, FCU's										
Activity 3: Promote Export Linkages											

3.1: Evaluation of Ethiopian coffee industry price performance (vs. a basket of international high quality coffees), & impact assessment of ECX Q system)	ECX, MoTI, International Coffee Org	Reports produced	1					1	0	0	The start-up work started and the actual activity will be due in July 2012
3.2: Conduct EAFCA Taste of Harvest coffee competition (washed coffees)	CQI, ECX, EAFCA-Ethiopian Chapter	Number of samples collected and presented for competition	50					50	83	157%	
3.3: Organize coffee caravan trip to cup at origin, focusing on women entrepreneurs	Women Entrepreneurs Coops	Number of caravans organized	1						1	100%	
3.4: Organize and facilitate the involvement of local producers in the Arabica Natural Conference and International competition (unwashed coffees) during the EAFCA	ECX, EAFCA-EC, CQI and stake holders	Number of samples collected and presented for competition	30					30	96	320%	
3.5: Facilitate local producers' participation, cupping and marketing at EAFCA Conference	ECX, EAFCA-EC, CQI and stakeholders	Number of booths leased for associations and unions to promote their coffee	1					1	2	200%	
3.6: Provide marketing mechanism for the Taste of Harvest and Naturals (sun dried coffee) Competition finalists during the EAFCA Conference	MoA, MoTI, ECX, EAFCA-EC, CQI, and stakeholders	Volume of winner coffee sold	180 MT					180 MT	126	70%	
3.7: Strategic planning meeting of stakeholders for developing an applied R&D agenda for coffee	MOA, AGP-ATP, JRC, CQI	Number of meeting conducted	1	1					1	100%	

3.8: Conduct advanced roasting skill workshop and marketing event	Ethiopian Coffee Roasters Association, Institute of Capacity Building Proj SCAA, CQI	Number of participants in the work shop	15					15	25	167%	
3.9: Cupping show and promotion of Ethiopian coffees at the SCAA trade fair	SCAA, ECEA, CQI, Unions, & ECGPEA	Number of samples and types of coffee promoted in the event	30						40	133%	
Intervention II: Assist Transformation of Coops/Unions, Private Agribusinesses and Associations to Become Effective Service Providers											
Activity 1: Strengthen Co-ops and FCUs											
1.1: Conduct M-3 assessments of 4 cooperative partners	BDS Provider, FCA	Number of unions/co- ops trained	2	1	1				5	250	
1.1.1 Management & Leadership											
1.1.2 Membership & Services											
1.1.3 Accounting & Finance											
1.1.4 Marketing, Service, Contracts											
1.1.5 Physical Facilities & Equipment											
1.1.6 Findings, Recommendations, Planning											
Intervention III : Increase Reliable and Commercial Access to Improved Inputs & Farm Technology											

Activity 1: Expanded and reliable access to improved seed; provide TA to research centers, private commercial farms, primary cooperatives and smallholders as seed producers											
1.1: Scale up multiplication & the volume of selected high-quality seeds in 6 coffee seed orchards	Oromia Coffee FCU, SNNPR, ATA, JRC, Institute	Volume of seed increased in the six orchards (%)									
1.1.1 Asses the current seed production potential & volume			45	30	15				0	0	Start up work completed.
1.1.2 Identify Input, technical & financial needs of each center to increase productivity											
1.1.3 Provide inputs, technical and financial support on time											
1.2: Scale up capacity building to provide increased volume of seeds	Woreda Agricultural Offices, JRC, growers	Number of stakeholders capacitated									
1.2.1 Identify organized CIGs, private commercial farms, primary cooperatives and smallholders as coffee seed & seedling producers aggregated by gender.			10	6	4					0	This activity will be affected in September; the MoU with research centers is in process.
1.2.2 Identify nursery sites in each woreda to be operated by the organized CIGs, unions/cooperatives, private commercial farms & small holders											
1.2.3 Establish nursery sites with capacity of 100,000 seedlings each											
1.2.4 Provide Inputs, technical support and small nursery farm tools											

1.3: Conduct field training to select mother coffee plants for seed preparation to prepare for year 2 planting.	Woreda Agricultural Offices, JRC, growers	Number of trainees involved in the training	50	25	25					0	This larger activity will be realized in Q4 and the first quarter of year two.
1.3.1 Identify trainees from regions(2), zones(5) and woredas (45)											
1.3.2 Identify trainers, sign MoU, with Jima research center											
1.3.3 Conduct field training in Oromia and SNNPR											
Activity 2: Improved distribution of inputs and farm technology; build capacity of cooperatives, commercial farmers, smallholder private nurseries and woreda nursery sites to increase the volume of high quality seedlings											
2.1: Provide ToT in high-quality coffee seedlings production	Woreda Agricultural offices, JRC, growers, ATA, CDP, JARC, MOA, Regional agricultural offices	Number of trainees involved in the training	30	20	10					0	This activity has been initiated with identification of Common Interest Groups in process and will be finalized in first quarter of year two to coincide with crop cycle.
2.1.1.Assess training needs in 2 region, 5 zone, 15 woreda (2 experts/woreda)											
2.1.2 Prepare training manual on coffee seedling production./ 45 copies of manuals /											
2.1.3 Conduct training / in JRC											
2.2: Provide training on nursery management	Woreda Agricultural Offices, growers	Number of trainees involved in the training	30	20	10					0	This activity has been initiated with identification of Common Interest Groups in process and will be finalized in first quarter of year two to coincide with crop cycle.
2.2.1 Select trainees from 2 CIGs, 2 cooperatives, 1private farm and 2 smallholders											
2.2.2 Prepare manual &conduct training for the woreda DAs, cooperatives, smallholders & CIGs involved on seedling production											

2.3: Develop nursery infrastructure for smallholders, women headed households & co- ops at woreda levels	Input Suppliers, Grant Manager, Sr. Gender Spec	Quantity of shade mates, water sprinklers, sprayers, diggers, shovels distributed to beneficiaries	30	20	10					0	This activity will be due in first quarter of year two to coincide with crop cycle
2.3.1 Identify smallholder women headed household & c=oops involved in nursery activity in 6 woredas											
2.3.2 Identify need of farm tools for nursery in each woreda and nursery sites											
2.4: Provide ToT on BAP for specialized coffee extension workers	JARC, MOA, Regional Agriculture Office, Woreda Ag Office	Number of trainees involved in the training	30	15	15					0	This activity will be due in first quarter of year two to coincide with crop cycle
2.4.1 Asses training needs & select trainees in 2 regions, 5 zones, 15 woredas (30 experts)											
2.4.2 Prepare training manuals											
2.4.3 Conduct training in JRC											
2.5: Establish field demonstrations on the use and merits of multi-nutrient fertilizers and improved planting material; provide training to maximize effective use of coffee inputs and organic fertilizers	JRC, selected international organic fertilizer organizations growers, selected cooperatives and unions	Number of demos established	12	6	6					0	This activity will be due in first quarter of year two to coincide with crop cycle
2.5.1 Identify smallholder farmers (model farmers) for field demos, demarcate the plot											
2.5.2 Provide improved planting material and prepare multi nutrient fertilizer or organic fertilizer as appropriate											
2.6: Provide training on Best Agricultural Practices, pre- & post-harvest handling	MoA, ATA, Regional Agricultural Office, Coffee Coop Unions	Number of trainees involved in the training	50	30	20					0	This activity will be due in first quarter of year two to coincide with crop cycle
2.6.1 Assess training needs & select trainees in 2 regions, 5 zones, 15 woredas including members of co-ops (50 trainees)											

2.6.2 Prepare training manuals on pre- & post-harvesting handling											
2.6.3 Conduct training in Oromia and SNNPR											

SESAME VALUE CHAIN

Background

Sesame is now Ethiopia's second largest agricultural export after coffee in terms of foreign revenue earnings. National production estimates for 2008/09 show that about 320,000 MT was produced, two-thirds of which was by smallholder farmers and the balance by larger commercial farmers. Continued growth in international demand, particularly in the Far Eastern and Middle East markets, offers significant growth potential for Ethiopian sesame. Ethiopian growers have responded to this strong demand. However output growth has been a result of increased areas planted (extensification), which grew by almost 50 percent between 2007 and 2009, with little or no productivity gains achieved over the last ten years.

Overall Vision and Strategy

A VISION FOR CHANGE

AGP-AMDe's vision for the sesame value chain is to expand quality production to increase Ethiopia's share in international markets.

AGP-AMDe is supporting increased yield and efficiencies through adoption of a combination of improved varieties and agronomic practices and better post-harvest handling, storage, grading and sorting practices. AGP-AMDe helps agribusinesses to upgrade and increase the range and quality of services they can offer to their clients or farmer members, including embedded extension services that can significantly improve both the quality and volume of sesame available for export. AGP-AMDe works with ECX and its exporter clients to enhance communication among actors and increase trust through transparency in relationships. The project works closely with EPOSPEA to raise the profile of Ethiopia as a leading exporter of consistently high-quality sesame.

Activities during the Quarter

Several stakeholder meetings were completed in this quarter for the sesame value chain including meetings with the AGP-AMDe Regional Manager in Tigray, the Sesame Value Chain Officer in the Regional Bureau of Agriculture, the Regional Cooperatives Agency, the Tigray Multipurpose Marketing Federation (TMPMF), four FCU mangers and three commercial farmers. The meetings focused on AGP-AMDe's implementation activities and developing AGP- AMDe partnerships.

AGP-AMDe initiated discussions with the ESE as part of the project strategy to upgrade basic seed multiplication and production of certified seed. ESE anticipates that it will collect 30 MT of newly released sesame varieties (Setit 1 and Humera 1) to be produced through smallholder farmer outgrowers for certified seed multiplication. Primary cooperatives and FCUs will buy the seed and sell it to smallholder farmers for production and linkage to export markets.

Intervention I: Enhance Marketing and Market Linkages

Recent data released by the Central Statistics Agency (CSA) in Ethiopia indicate that in 2011-2012, sesame was the major export crop for oil seeds and second only to coffee in export foreign exchange earnings. As per the CSA data, about 893,883 smallholder farmers were involved in production of 244,783 MT of sesame from 337, 505 hectares of cultivated land. Sesame also exceeded coffee as the most traded commodity on the ECX, at over 50 percent of the 601,000 MT of commodity traded on the exchange in 2011-2012. This indicates that in 2012, sesame exports were higher by 44 percent in volume and by 43 percent in value from the 2011 export performance. With export volume and value

for sesame increasing, AGP-AMDe will continue to facilitate improved marketing for smallholder and commercial farmers to affect better incomes for value chain stakeholders throughout the sector.

To facilitate sesame market linkages during the quarter, AGP-AMDe partnered with the Ethiopian Pulses, Oilseeds and Spices Processors Exporters Association (EPOSPEA) to host the first International Conference on Pulses, Oilseeds and Spices at the Sheraton Hotel in Addis Ababa. The objective of the conference was to position the pulses, oilseed, and spices sector in Ethiopia – including sesame – as a preferred reference market destination for international buyers, not only in the region but also at the global level. The conference aimed to achieve this objective by promoting the sector's growth potential among all strategic supply side actors through plenary sessions, business to business match making workshops, product display and showcase venues, field visits to select trading and processing plants, and networking sessions. Over 210 foreign and national participants attended the three-day conference, including key exporters and importers in the sector, private sector operators, representatives of conference sponsors, dignitaries and media. Twenty five international buyers from Europe, Asia and Middle East participated in the conference.

Additionally, AGP-AMDe played a significant mediation role in resolving a long standing conflict between the Tigray Marketing Federation (TMF) and four sesame FCUs in the AGP woredas of the Tigray region. The parties are now moving forward with plans to develop supply agreements in the next quarter for sale of sesame to the TMF. AGP-AMDe is also working with the TMF to develop a business plan for improved storage capacity through investment in 10,000 MT warehouses and modern clearing machines that would improve the ability of the TMF to meet quality requirements of buyers.

Intervention II: Assist Transformation of Cooperatives/Unions, Private Sector Associations and Agro-Dealers to Become Effective Service Providers

The project value chain team and rural finance team worked with Setit Humera, Dansha Aurora, Selam and Metema FCUs to develop business plans to secure financing from the Commercial Bank of Ethiopia for the construction of five warehouses of 5,000 MT capacity. ACDI/VOCA will provide 50 percent of the total investment in the warehouses as part of the Innovation Grant Fund, and the FCUs will finance the remaining 50 percent by securing bank loans, which AGP-AMDe is facilitating. The FCUs will also explore similar business plans by the FCUs and Commercial Bank of Ethiopia to finance clearing machines.

The sesame value chain has a solid "M3 Average" rating of 3.22 suggesting overall institutional ability among the six surveyed FCUs, and at least commercial functionality in this cash crop trade sector. The six surveyed FCUs reach 111 partner cooperatives in the Tigray and Amhara regions comprising 41,000 individual members. The FCUs were established between 2000 and 2009. The surveyed FCUs are fairly strong. Their memberships include between 6 and 39 participating cooperatives and are consistently localized in a single woreda. The Setit Humera FCU, established in 2002 in Tigray, leads our surveyed sesame organizations in individual membership with 11,700 farmers across 19 participating cooperatives. The M3 category scores of Membership, Management and Money for the sesame value chain are uniformly strong, all averaging near or above 3.0. All six of the surveyed FCUs underwent financial audits last year.

Table 7: M3 Scores for Sesame Value Chain

Sesame value chain M3 scores:	**3.22**	**Average**		
Membership range:	2.38	Low	3.50	High

Management range:	2.60	Low	3.80	High
Money range:	2.88	Low	3.50	High

Intervention III: Increase Reliable and Commercial Access to Improved Inputs and Farm Technology

As part of the planned market linkage demonstration sites, AGP-AMDe facilitated the distribution of 200 quintals of improved variety of sesame seeds (Humera1 and Setit1) from Humera Agricultural Research Center through an agreement with the Ethiopian Seed Enterprise, Tigray branch and five quintals of the same two varieties form Amhara Seed Enterprise (ASE) to selected farmers for multiplication through the Metema FCU and the Metema Office of Agricultural and Rural Development. The project will accelerate this activity by providing technical assistance to the FCUs. The project's expert will also assist during the field-level inspection for improved Global Agricultural Practices (GAP).

AGP-AMDe signed an MOU with the EIAR to increase production and availability of breeder, pre-basic and basic sesame seeds for multiplication. The project coordinated with EIAR to conduct needs assessments for selected regional research centers within the EIAR network to identify capacity gaps and areas for key upgrades.

AGP-AMDe facilitated the establishment of eight demonstration sites in five woredas in Tigray and Amhara for promotion of improved sesame varieties, fertilizer trials and best agricultural practices for on-farm training, experience sharing and facilitating market linkages for sale of improved varieties. Twelve demonstration sites were also established for new fertilizer trials as a result of the soil testing conducted by IFDC. These activities are aimed at alleviating or minimizing the problems associated with reliable supply of improved seed and fertilizer for sesame production.

Components / Activities	Potential Partners	Estimated Output for Year I	Target Beneficiaries Disaggregated by Region						Year to date Actual	Percentage of target achieved YTD	Comments
			Target	Oromia	SNNPR	Amhara	Tigray	Addis Ababa			
Component 1: Improving the Competitiveness of Selected Value Chains											
Intervention I: Enhance Marketing and Market Linkages											
Activity 1: Improve Marketing Systems and Practices											
1.1: Assist exporting unions and selected exporters in planning for expansion to meet export demand over the next 5-10 years	Dansha Aurora and Setit Humera FCUs , Tigray Mulitpurpose Marketing Federation (TMPMF); Regional, zonal and woreda AGP FP, FCA, Exporters	Assist & develop export expansion plan for the selected exporters	2 FCUs & 2 exporters			1 Exporter	2 FCU & 1 Exporter		2	100	2 FCUs and TMFs identified, the quantities determined, geographic area determined as 3500 MTs for the two. The field trip will be arranged for the coming crop season (July --Oct)
1.1.1: Identify export sales targets for unions and exporters, based on expected demand and investment expansion											
1.1.2**:** Determine quantity of additional raw product necessary to satisfy expected demand											
1.1.3**:** Identify best geographic areas from which additional raw product should be sourced via primary co-ops or groups											
1.1.4**:** Conduct field trip with unions to discuss expansion plans with co-ops and producer groups											

1.2: Conduct SMFM business training at selected unions and primary cooperatives.	BDS Provider, FCA, Setit Humera,Dansha Aurora, Selam, Tekeze and Metema FCU,	SMFM Training Series to FCU's	5 FCU & 10 co-ops			3	12				
1.2.1: Management , Leadership, Gender	AGP Coordinators, FCA, FCU										
1.2.2: Post-Harvest Handling											The activity was extended to Q4 align with other VC program activities
1.2.3: Nutrition	AGP Coordinators										
1.2.4: Business Management Skills	AGP, FCA, FCUs										
1.2.5: Record Keeping	AGP, FCA, FCU's, Savings & Credit Associations										
1.2.6: Marketing, Contracts, Sourcing	AGP, FCA, FCUs								0	0	
Activity 2: Demonstrate Specific Market Linkages											
2.1: Assist unions in negotiating delivery terms with TMPMF for quantity, quality, timing & forward contract terms	Dansha Aurora,Setit Humera FCU's & TMPMF	Training & familiarization of the contract	4 from FCU & 2 from TMPMF				6				For 4 FCUs and 1 TMPMF,
2.2: Assist unions in sourcing supply of seed for production and multiplication									5	83	

2.3: Determine financing requirements for the union to supply inputs & for purchase of harvested crop	Setit Humera, Dansha Aurora, Lemele, Tekeze and Metema FCU										
2.4: Arrange financing for inputs and/or output for contracted sesame deliveries											
Activity 3: Promote Export Linkages											
3.1: Facilitate 3,000 MT sale between 2 FCUs and TMPMF	Dansha Aurora,Setit Humera FCU's. TMPMP, CBE, Primary Co-ops, FCA, AGP Focal People	Purchase & export of 3,000 MT sesame	2 FCU & TMPMF				1500 MT for each FCU				
3.1.1: Meet with FCUs & TMPMF to define transaction volume, quality, delivery time, and terms of payment											
3.1.2: Identify participating primary co-ops											
3.1.3: Conduct buyer missions from regions and countries that offer new opportunities. FCUs and EPOSPEA use buyer information and advice to expand and improve output quality to develop new markets and relationships.	Buyers from US, Far East, Europe	Buyer Mission with at least 2 large-scale buyers									
3.1.4: Continue working with potential investor from Middle East on sesame processing in Tigray; linking with potential local investor(s); providing input on business and investment plan		Investment Opportunity Commitment							2	100	
Intervention II: Assist Transformation of Co-ops/Unions, Private Agribusinesses and Associations to Become Effective Service Providers											
Activity 1: Strengthen Co-ops and FCUs											

1.1: Conduct M-3 assessments of cooperative partners	BDS Provider, FCA, Setit Humera,Dansha Aurora, Selam, Tekeze and Metema FCU	Completed M3 Assessments	5 FCU, 10 co- ops, 2 PAB			3	14				
1.1.1: Management & Leadership											
1.1.2: Membership & Services											
1.1.3: Accounting & Finance											For 5 FCUs and 8 Primary Cooperatives
1.1.4: Marketing, Service, Contracts											
1.1.5: Physical Facilities & Equipment											
1.1.6: Findings, Recommendations, Planning									13	76	
Activity 2: Introduce Effective Post-Harvest Handling that Reduces Loss											
2.1: Provide TA to improve grading, sorting and storage management to managers, purchasers, store keepers and DAS in respective intervention woredas for 60 trainees	Setit Humera and Dansha Aurora FCU/ Coops	Management and Supervisors Trained	60				60		52	87	
Activity 3: Assist Private Sector Associations and Facilitate Stakeholder Collaboration											
3.1: Facilitate the participation of co-op unions, TMPMF and exporter members of EPOSPEA in international and national trade fairs	Regional, zonal and woreda AGP FP, Chamber of Commerce, co-ops, ECX, ATA, NGOs	Number of groups participating E in trade fairs	2FCU, 1TMPMF & 2 POSPEA members				3	**2**	0	0	This activity was not conducted because the FCUs chose not to participate and this type of event was not organized locally, rather nationally.

3.1.1: Identify events which would provide exposure and potential for obtaining incremental business											
3.2: Assist EPOSPEA to prepare quarterly market bulletin for dissemination its members	EPOSPEA	Number of bulletins disseminated	2						0	0	The draft was shared with EPOSPEA from AGP-AMDe through the BDS specialist and waiting for their feedback from EPOSPEA in Q4.
Intervention III : Increase Reliable and Commercial Access to Improved Inputs & Farm Technology											
Activity 1: Expanded and Reliable Access to Improved Seed											
1.1: Assist ARIs. Provide TA to build the capacity of Humera, Metema and Gondar ARCs and Tigray and Amhara Regional ARIs to produce basic seed	EIAR, TARI (Tigray) and ARARI (Amhara)		10				4	**6**	0	0	The MOU has been signed between ACDI/VOCA and EIAR and the assessment is going on in relation to the MOU in Humera and Gonder Agricultural research centers.
1.1.1: Identify the capacity gaps and needs; develop training modules and deliver training program;		Training Program							0	0	
1.1.2: Assess needs for lab equipment & other requirements to build capacity		Assessment Report							0	0	This is part of the assessment indicated above.
1.1.3: Provide recommendations to access funding via Innovation fund and other sources									0	0	This activity will be realized after the need assessment and agreement with each

1.2: Seed Multiplication. Build capacity of Setit Humera, Dansha Aurora, Lemlem,Tekeze, and Metema FCU and commercial farmers to multiply seed	Reg AGP zonal & woreda focal persons, Seed Companies, Humera and Gondar Research Centers	Target number of groups for seed multiplication							0		agricultural research centers in Q4 and Y2.
1.2.1: Conduct assessment of business using M-3 tool; determine needs for warehousing, handling systems, management		Assessment Report							0		
1.2.2: Complete plan for investment in storage and handling systems, and management requirements.		Plans completed							0		
1.2.3: Link firms to sources of financing, including application for AMDe innovation funds		Applications completed							0		
Activity 2: Improved Distribution of Inputs and Farm Technology											
2.1: Conduct sesame variety & fertility demonstrations at selected sites, led by cooperative unions									0		
2.1.1: Demo sites Identified with co-ops, producer and commercial farmer partners	FCUs/ seed production companies, Woredas DAs; AGP Regional, zonal and woreda focal persons, ARCs	To promote Setit 1 & Humera 1 varieties & compare with local ones	7 SHF & 2 commercial farmer demos				9		9	100	8 smallholder farmers within partner FCUs and one commercial farmer

2.1.2: ToT program for training to cooperatives, DAs and ARC lab technicians on demo plot establishment & soil sampling plan with woreda DAs in the implementation and follow up activities		Programs completed; demo designs submitted	110 samples & 22 demos			10 samples & 2 demos	100 samples & 20 demos		12	12	Soil sampling and demonstration sits selection ongoing for Q4
2.1.3. Sample results analyzed & recommendations made for sesame fertilization		Recommended actions submitted							12		As per the soil test result, the seed has been planted.
2.1.4. Selected seed varieties to be planned in the demonstration											
2.1.5. Review demo protocols with cooperatives and other collaborators; identify needs for seed supply, technical and financial support from the project											
2.1.6. Establish demo plots at selected sites; give on farm training program for SHF on seed selection, land preparation, proper weeding and harvesting		Record demo establishment information									
2.1.7. Plan field days to demonstrate the impact; identify program points to exhibit GAPs and experience sharing among the SHF		Dates for field days							9	900	This activity will be due in August/September.

HONEY VALUE CHAIN

Background

Ethiopia is Africa's largest producer of honey and ranks tenth in the world, with a current national estimated honey production of 43,700 MT. About 5 percent of honey produced is consumed at home by rural households, and 80 percent goes to the *tej* sector. There are currently no regulations, guidelines or standards associated with honey production for the local market, and, as the *tej* market is made up of undiscerning consumers, there has until recently been little incentive to address issues related to quality. However, a fledgling export business for top quality organic honey and a growing local market for superior quality table honey have the potential to raise the profile of the Ethiopian honey sector, transforming it from a traditional low-quality sector to a high-value export-oriented one.

Overall Vision and Strategy

A VISION FOR CHANGE

AGP-AMDe's vision for the honey value chain is to improve productivity and competitiveness through increasing the volume of quality table honey for the domestic and export markets.

Key AGP-AMDe interventions in the honey value chain are as follows:

- Support modernization of the traditional practice of raising bees and harvesting honey to improve quality
- Promote the establishment of standards and guidelines, helping to establish quality parameters for the production, processing and product differentiation of honey
- Improve market linkages and networks for consolidation, packaging and labeling to enhance niche market opportunities for table honey in both domestic and export markets
- Conduct ongoing market research to verify appropriate and lucrative long-term markets for exports
- Assist the development of marketing campaigns and promotion to raise the profile of high-quality Ethiopian honey in both domestic and international markets
- Provide technical and financial support to the development of nutritional awareness campaigns to increase household demand for high-quality honey
- Increase producers' adoption rate of transitional and modern beehives, through the commercial and cooperative network, that will increase productivity, household incomes, leading to a more competitive position for Ethiopian honey exports.

AGP-AMDe will proactively target women beekeepers, as well-managed bee colonies are an excellent source of additional household income, which usually remains within the domain of the female actors managing the activity.

Activities during the Quarter

Intervention I: Enhance Marketing and Market Linkages

AGP-AMDe partnered with the Ethiopian Apiculture Board (EAB) to sponsor the renewal of certification of the Ethiopian honey industry on the official third country listing for export to the EU market. This support included honey sample collection in all regions, laboratory testing by a lab in Kampala, Uganda, and the preparation of the certification report for EU submission. The EU is a major honey consumer, accounting for around 20-25 percent of global consumption. The beekeeping sector in the EU is considerable, but not very price competitive. Much of the honey on the market

needs to be imported from outside the EU member countries. EAB anticipates the EU will respond positively to the certification request by the next quarter.

As reported in the previous quarter, AGP-AMDe is taking a leading role in the promotion and organization of the ApiExpo Africa 2012 trade show, to be held in Addis Ababa in September. The project helped launch promotion for ApiExpo Africa 2012, under the theme of "Beekeeping for food security and combating climate change" in May at the Hilton Hotel. Attendees included prominent private sector buyers, bee keepers, Ethiopian government officials, donors, embassies, NGOs, and more. In a public statement at the event, the Minister of Agriculture thanked USAID/Ethiopia AGP-AMDe for organizing the launch.

Beza Mar Agro Industry continued to take advantage of improved market linkages with Ethiopian honey producer groups, facilitated by AGP-AMDe, with a second purchase of raw honey from two cooperatives. The Agunta cooperative in Dangila woreda sold 4,159 kg of honey at 228,745 Birr, and Ediget Chora cooperative in Jabitehnan woreda sold 1,700 kg of honey at 76,500 Birr to Beza Mar.

AGP-AMDe contracted William Lord, a bee product marketing expert, to assess the existing trends in bee product marketing and packaging in Ethiopia, and to devise strategies and implementable actions for improved marketing and packaging of diversified bee products (honey, wax, pro-polis, pollen, royal jelly, etc.) in the context of smallholder farmers and at commercial levels. The assessment concludes that the quality of raw bulk honey in Ethiopia is excellent and is being separated by floral source. Prices for bulk honey are artificially high relative to world prices due to supply shortages that can be attributed to the exploitative management of the honey bee resource in Ethiopia and good demand for the limited supply of raw honey at the farm gate. The four processors selected for intervention by AGP-AMDe would benefit from planned supply-side linkages to beekeepers proposed by project staff. Beekeeping management improvements should result in higher honey yields that will ease the pressure on bulk honey prices.

Additionally, the assessment concludes that the retail market for honey in Ethiopia is being poorly served due to shortages of good quality packaging materials (jars and boxes) and unskilled processing, resulting in unattractive honey. Opportunities exist for diversification into flavored/fruit/nut honey blends, as well as introduction of beeswax and related hive product-based cosmetics for the local and intra-African market. A strong marketing/branding effort needs to be initiated to emphasize the high quality of Ethiopian honey and the positive social, economic, and environmental impact of honey production to counteract negative perceptions of Ethiopia in the developed world. One possible means of circumventing the container shortage is to export bulk honey to custom co-packers in the U.S. or the EU for fee-for-service processing, packing, labeling, and shipment to food distributors. The full report is included in Annex II.

Intervention II: Assist Transformation of Cooperatives/Unions, Private Sector Associations and Agro-Dealers to Become Effective Service Providers

The honey value chain has a fairly low "M3 Average" rating of 2.35 suggesting some overall institutional vulnerability among the four surveyed FCUs, and relatively weak commercial functionality in the sector. Most honey is not commercialized and the processing sector reportedly has a shortage of raw material. Not surprisingly, the honey VC scores lowest among the six surveyed value chains in each of the three M3 categories. The four surveyed FCUs reach 16 partner cooperatives in the Amhara and SNNP regions comprising 7,400 individual members. The surveyed FCUs were established between 2001 and 2006. All four of the surveyed FCUs underwent financial

audits last year. One honey FCU, Zenbaba in Amhara, serves 4,000 individual members through 9 affiliated cooperatives. Zenbaba scored 2.6 to 2.9 in all three M3 categories, averaging 2.7 overall.

Table 8: M3 Scores for Honey Value Chain

Honey value chain M3 scores:	**2.35**	**Average**		
Membership range:	2.25	Low	2.63	High
Management range:	2.00	Low	2.60	High
Money range:	1.88	Low	2.88	High

Intervention III: Increase Reliable and Commercial Access to Improved Inputs and Farm Technology

The team contracted honey industry expert Ed Levi to assess the existing trends in bee product production in Ethiopia, conduct a feasibility study for the production and processing of new/improved varieties of bee products, and devise strategies and actions for improved production and processing of identified bee products in the context of smallholder farmers and at commercial levels. The full report will be finalized in the next quarter, but preliminary results suggest that the key upgrade necessary for increased quantity of honey production in Ethiopia is a transition from traditional bee keeping practices and tradition bee hives to modern practices and hive technology. Specifically, the consultant has recommended a model whereby four Ethiopian processors will create value chain networks linking processors to trainers and beekeepers via training and provision of hives, ensuring linkages of producers to processors to increase yields, raise producer incomes, and solve supply side issues.

AGP-AMDe partnered with Winrock International to conduct training on modern beekeeping practices for honey cooperatives and processors in all the four regions (Table 8). The methodology used followed a training of trainers model that would allow participants to become trainers themselves for other cooperative members and suppliers as a business development service.

Table 9: Modern Beekeeping Trainings

Region	**Number of trainees**			**Host**
	Female	Male	Total	
Oromia (Wolega & Fiche)	54	58	112	Beza Mar plc, Bedele Union & Tsedey Honey plc
SNNP (Mizan & Bonga)	45	45	90	Beza Mar plc, Kaffa union & Apinec
Amhara (Finoteselam & Bahar Dar)	15	83	98	Beza Mar plc/Ediget Chora coop and Zembaba union
Tigray (Korem)	3	35	38	Comel Plc/Hashengie FCU
Total	117	221	338	

Components / Activities	Potential Partners	Estimated output for Year 1	Target Beneficiaries Disaggregated by Region						Year to date Actual	Percentage of target achieved YTD	Comments
			Target	Oromia	SNNPR	Amhara	Tigray	Addis Ababa			
Component 1: Improving the Competitiveness of Selected Value Chains											
Intervention I: Enhance Marketing and Market Linkages											
Activity 1: Improve Marketing Systems and Practices											
1.1: Promote quality standards and niche market requirements for hives, honey and wax											
1.1.1 Engage with cooperatives, FCUs, agribusinesses, boards, associations, and GoE stakeholders to organize 5 stakeholder meetings to promote quality standards and niche market requirements	MoA, QSA, EAB, EHBPEA, EBA, Holleta RC, Beza Mar Agro, Tseday Honey, Ediget Chora Coop, Zembaba Ashengie, Kaffa and Bedelle, and research centers	Number of stakeholder workshops conducted	5					5	5	100	MSP meeting conducted in Addis and four regions
1.1.2 Conduct stakeholder meetings and establish a working group consisting of key members selected from the participants to review and promote standards											
1.1.3 Initiate the review and proposed amendments of standards by the working group		Number of standards reviewed	3					3	0	0	Start up work initiated. Working groups (quality assurance and standards, bees products promotion, event participation) on honey at regional and national level
1.1.4 Assess the existing capacities of institutes and other stakeholders (ASA, MoA, MoA, etc.) to undertake honey and beeswax testing and prioritize potential investments for innovation fund		Number of Assessments	3					3	0	0	Assessment of three honey laboratories performed and the selection will be due in the next quarter.
1.2: Promote the improvement of packaging and labeling to meet domestic and export market requirements	Ethiopian and regional apiculture	Number of unions/ co- ops participating in	4	1	1	1	1		0	0	Packaging scheme development assessment was done and gap identified;

1.2.1 Link printing enterprise that can work on label printing and 2 honey container (jars, barrels, fillers, etc.) suppliers/ manufacturers to 3 private packers that buy bees products from smallholders	boards, QSAE, Private Exporter, producers & processors and associations	packaging schemes									packaging scheme linkage to be formalized next quarter.
1.2.2 Provide TA to printing enterprise on the improvement of the packaging and labeling											
1.3: Conduct SMFM business training at the selected union and primary cooperative levels.	BDS Provider, FCA	No. SMFM Training Series provided to FCU's	4	1	1	1	1		0	0	This activity will be executed along with other VC s in Q4
1.3.1 Management , Leadership, Gender	AGP Coordinators, FCA, FCU										
1.3.2 Post-Harvest Handling											
1.3.3 Nutrition	AGP Coordinators										
1.3.4 Business Management Skills	AGP, FCA, FCU's										
1.3.5 Record Keeping	AGP, FCA, FCU's, Savings & Credit Associations										
1.3.6 Marketing, Contracts, Sourcing	AGP, FCA, FCU's										
Activity 2: Demonstrate Specific Market Linkages											

2.1: Facilitate sales agreements for quality honey between 3 major buyers and 4 co-ops/ unions	Beza Mar Agro, Tseday Honey, Ediget Chora Coop, Zembaba Ashengie, Kaffa and Bedelle	Number of sales schemes	4	1	1	1	1		2	50	Two sales schemes b/n Beza Mar agro industry and Abunta and Edget Chora primary Coops.
2.2: Facilitate stakeholder participation in local, regional and national marketing events and trade fairs	MoA, QSA, EAB, EHBPEA, EBA, Holleta RC, Beza Mar Agro, Tseday Honey, Ediget Chora Coop, Zembaba Ashengie, Kaffa and Bedelle, and ARCs	Number of stakeholders participating in events	200	60	50	50	25	15	0	0	AGP-AMDe is selecting participants in all of the four regions and Addis and by end of July the selection process will be completed.
2.2.1 Promote events and trade fairs among private operators, associations/co-ops, members, BDS, MFIs/Banks and government partners											
2.2.2 Support the sustainability of the linkages established through assistance in negotiation of sales agreements											
2.3: Assist with the development of nutritional awareness campaigns to increase the demand for high quality honey	MoA, QSA, EAB, EHBPEA, EBA, Holleta RC, Beza Mar Agro, Tseday Honey, Ediget Chora Co-op, Zembaba Ashengie,	Print and media messages for local and national populations	5	1	1	1	1	1	0	0	Quality assurance working group and standards are preparing scope of work to develop nutritional messages.
2.3.1 Establish nutritional messaging working group from among key honey VC stakeholders											

2.3.2 Develop nutritional messaging strategy for honey at the regional and national level	Kaffa and Bedelle, ARCs										
Activity 3: Promote Export Linkages											
3.1: Support industry associations in export market demand research, promotion and linkages in targeted markets (U.S. and EU) 3.1.1 Work with industry associations to identify ESTTA and provide the necessary support to undertake the research 3.1.2 Vet the findings of the research among industry stakeholders 3.2.2 Facilitate sales agreements between buyers in identified export markets, exporters, and co-ops/unions	MoA, QSA, EAB, EHBPEA, EBA, Holleta RC, Beza Mar Agro, Tseday Honey, Ediget Chora Coop, Zembaba Ashengie, Kaffa and Bedelle, ARCs	Number of stakeholder s benefiting from market research	400	120	90	90	50	50	0	0	The research has already been conducted and AGP-MADE will share the findings and facilitate export linkages. The findings will be presented by end of September. So it is in the process.
3.2: Facilitate participation of honey VC stakeholder in international events and trade fairs 3.2.1 Promote and facilitate participation in ApiExpo Africa 2012 among private operators, associations/co-ops, members, BDS providers, MFIs/Banks and government partners 3.2.2 Support the sustainability of the linkages established through assistance in negotiation of sales agreements	MoA, QSA, EAB, EHBPEA, EBA, Holleta RC, Beza Mar Agro, Tseday Honey, Ediget Chora Coop, Zembaba Ashengie, Kaffa and Bedelle	Number of actors participating in ApiExpo Africa 2012	200	60	50	50	25	15	0	0	Participant mobilization has already started and the actual activity will be realized in September.
3.3: Improve capacity of honey business clinics to provide international market information to enhance export opportunities 3.3.1 Initiate the establishment of 4 (one in each region) honey business clinics managed by selected actors to provide international market information and promote investment on the beekeeping sector	Regional AGP focal persons, zonal and woreda focal persons, Beza Mar Agro, Tseday Honey, Ediget Chora	Number of resource centers established and strengthened	4	1	1	1	1		2	50	In the reporting period orientation was given on honey business clinics management and utilization through the hosts.

3.3.2 Facilitate sales agreements between the selected 4 unions/co-ops and 3 private operators	Co-op, Zembaba Ashengie, Kaffa and Bedelle										
3.4: Facilitate EU certification of exporters	MoA, QSA, EAB, EHBPEA, EBA	EU Certification	1					1	0	0	ACD/VOCA has provided technical and financial support for the EU accreditation renewal for the hosts (MoA and EAB) A response from the EU is anticipated for Q4.
3.5: Create international dialogue platforms for business partnerships in honey industry 3.5.1 Initiate establishment of dialogue platform with AU that includes ApiTrade Africa, CAADP, ACTESA, APIMONDIA, NGOs, etc.	ApiTrade Africa, CAADP, ACTESA, APIMONDI, Beza Mar Agro, Tseday Honey, Ediget Chora Coop, Zembaba Ashengie, Kaffa and Bedelle	Sustainable honey business partnership that serve created within AU	1						0	0	The plan is for the next quarter.
Intervention II: Assist Transformation of Co-ops/Unions, Private Agribusinesses and Associations to Become Effective Service Providers											
Activity 1: Strengthen Co-ops and FCUs											
1.1: Conduct M-3 assessments of 4 cooperative partners 1.1.1 Management & Leadership 1.1.2 Membership & Services 1.1.3 Accounting & Finance	BDS Provider, FCA	Number of unions/co- ops trained	4	1	1	1	1		3	75	For 1 FCUs and 1 primary cooperatives

1.1.4 Marketing, Service, Contracts 1.1.5 Physical Facilities & Equipment 1.1.6 Findings, Recommendations, Planning											
1.2: Gender awareness training to 4 co-ops/ unions impacting 250 women and men beekeepers, including issues of women leadership and intra-household decisions		Number of co-ops/unions trained	4	1	1	1	1				
Activity 3: Assist Private Sector Associations and Facilitate Stakeholder Collaboration											
3.1: Assist with the development of nutritional awareness campaigns to increase the demand for high quality honey 3.1.1 Establish nutritional messaging working group from among key honey VC stakeholders 3.1.2 Develop regional and national nutritional messaging strategy for honey targeted at women and household levels	MoA, QSA, EAB, EHBPEA, EBA, Holleta RC, Beza Mar Agro, Tseday Honey, Ediget Chora Co-op, Zembaba Ashengie, Kaffa and Bedelle, ARCs	Print and media messages for local and national populations	5	1	1	1	1	1			
Activity 4: Expand Value Addition through Agro-Processing											
4.1: Assess production capacity of honey processors and conduct feasibility study on bee products for value addition	MoA, QSA, EAB, EHBPEA, EBA, Holleta RC, Beza Mar Agro, Tseday Honey,	Number of new product differentiation to improve income	1					1			

4.1.1 Facilitate negotiations for sales agreements between 4 unions/co-ops and 3 processors	Ediget Chora Co-op, Zembaba Ashengie, Kaffa and Bedelle, ARCs										
Intervention III : Increase Reliable and Commercial Access to Improved Inputs & Farm Technology											
Activity 2: Improved Distribution of Inputs and Farm Technology											
2.1: Design field demonstration activities for improved modern beekeeping management practices 2.1.1 Select 4 demonstration sites (one in each region - including private sector actors, research institutes, women or youth groups, and the Lalibela National Apiculture Museum) and design/plan the demonstration activities in each site to promote improved best practices to smallholders 2.1.2 Facilitate the supply of hives, colonies and beekeeping equipment to the sites as per the design 2.1.3 Organize training programs for smallholders on demo site management, and modern beekeeping management with at least 4 clients/hosts in all the four regions	Regional AGP focal persons, zonal and woreda focal persons, Beza Mar Agro, Tseday Honey, Ediget Chora Coop, Zembaba Ashengie, Kaffa and Bedelle	Number of demonstration sites established and/or strengthened	4	1	1	1	1		0	0	Training was given (337 farmers) and site selection and establishment of demonstration sites will be executed in the next quarter.
2.2: Facilitate the sale and distribution of frame and intermediary hives and accessories from 4 co-ops / 3 private input providers to smallholder beekeepers (females, males, and youth) on commercial basis 2.2.1 Engage input providers in appropriate hive/accessories production and distribution to establish one appropriate hive production and accessories distribution center	Beza Mar Agro, Tseday Honey, Ediget Chora Coop, Zembaba Ashengie, Kaffa and Bedelle	Number of co-ops and private input providers participating in sales agreement	6	1	1	1	1	2			

CHICKPEAS VALUE CHAIN

Background

Chickpeas are produced by approximately one million households, mostly subsistence farmers. The crop is leguminous, requires low levels of inputs and management, and is a relatively drought-resistant crop. From a nutrition and food security perspective, chickpeas are a good source of protein and women are typically the custodians of the crop following harvest. While local demand is stable, export demand is increasing, which translates to high farm-gate prices and a good opportunity for smallholder producers. Nevertheless, downside risk remains relatively high due to low domestic market growth, with limited buffering for bumper harvests; the dominance of informal market channels with a lack of transparency, quality standards and reliable market information; lack of production and marketing financing for cooperatives; and limited information flow from export markets related to expected quality and demand.

Vision and Strategy

A VISION FOR CHANGE

AGP-AMDe's vision for the chickpea value chain is for Ethiopia to expand improved production to meet domestic demand and growing regional and export demand.

AGP-AMDe is engaging in several activities that will increase the competitiveness of the sector, such as the following:

- Addressing impediments to the availability of improved seeds
- Strengthening modern management capacities of cooperatives and unions
- Supporting the upgrading and expansion of post-harvest handling and storage, including capacity building on warehouse management practices and awareness creation on quality and standards
- Facilitating the introduction of agro-processing
- Strengthening marketing skills and market linkages
- Addressing financing constraints along the value chain

AGP-AMDe will introduce new international buyers to exporters and processors and will stimulate input suppliers and other agribusiness partners to scale up their capabilities to offer new technologies, products and services to smallholder farmer clients. These interventions will include the introduction and multiplication of improved seeds, specifically the Kabuli types; variety and fertility trials; access to credit for the purchase of seed and fertilizer; trainings by cooperatives in harvest and post-harvest handling techniques; the introduction to mechanized systems for tillage, planting and harvesting; the expansion of cleaning, handling and storage facilities; and linkage to ECX marketing, warehousing and receipting systems.

Activities during the Quarter

Intervention II: Assist Transformation of Cooperatives/Unions, Private Sector Associations and Agro-Dealers to Become Effective Service Providers

AGP-AMDe developed and introduced a chickpea manual that was used for delivering two five-day trainings to cooperative officials, Development Agents (Das), and AGP regional focal persons in Becho (170 participants) and Gondor (80 participants). The trainings inform value chain stakeholders on the process of chickpea production and marketing activities for this crop season and ensure appropriate support for the farmers and FCUs.

The chickpea value chain has a fairly solid "M3 Average" rating of almost 3.00 suggesting overall institutional ability among the six producer groups surveyed (three FCUs and three cooperatives), and at least commercial functionality in the sector. Chickpea has few dedicated FCUs but is served largely through multi-purpose cooperatives. The six surveyed producer groups reach 141 partner cooperatives in the Oromia and Amhara regions comprising over 121,000 individual members. The three FCUs and three primary cooperatives were established between 1997 and 2008. The three FCU memberships include between 36 and 54 participating cooperatives which extend over 3-9 woredas. The M3 Membership category scores under the surveyed chickpea value chain organizations vary significantly, between 1.9 and 3.5. Management and Money scores range higher, between 2.38 and 3.50. All six of the surveyed groups underwent financial audits last year. One multi-purpose FCU, Becho-Woliso established in 2000 in Oromia, serves 58,000 individual members through 54 affiliated PCs in 6 woredas. Becho-Woliso scored 3.13 or above in all three M3 categories averaging nearly 3.4 overall.

Table 9: M3 Scores for Chickpea Value Chain

Chickpea value chain M3 scores:	**2.98**	**Average**		
Membership range:	1.90	Low	3.50	High
Management range:	2.50	Low	3.50	High
Money range:	2.38	Low	3.13	High

Intervention III: Increase Reliable and Commercial Access to Improved Inputs and Farm Technology

As an immediate follow-up to the chickpea manual trainings, AGP-AMDe worked with three of the FCUs, all of which participated in the M3 assessments, to prepare grant requests for facilitating access to improved seed. The grant investment structure is based on a 50 percent cost sharing commitment from grantees. The seed will be provided on credit to farmers in the following quarter in order to secure marketing output that will be later cleaned, stored and exported for increased profits to the FCUs. The seed will be provided based on the following schedule:

- Tsehay FCU will procure 1,252.5 MT chickpea seed valued at 996,990 Birr for distribution to approximately 1,700 cooperative member farmers.
- Becho Woliso FCU will procure 1,248 MT chickpea seed valued at 2,496,000 Birr for distribution to approximately 1,650 cooperative member farmers.
- Lume Adama FCU will procure 500 MT chickpea seed valued at 1,000,000 for distribution to approximately 1,000 cooperative member farmers.

AGP-AMDe is finalizing the terms of grants to the FCUs for support of the revolving seed fund. The FCUs must provide a detailed plan for at least 50 percent cost share with submission of their business plans in the next quarter.

In addition to seed, AGP-AMDe will work with all three FCUs to provide technical capacity building for managing outputs and storage, and to explore additional investments on a cost-shared basis to ensure the product is of desirable quantity for export. Potential investments will target improvements in storage capacity, introduction of processing equipment and provision of mechanized services to farmers.

One of the key interventions focuses on working with FCUs to secure the output financing necessary to purchase chickpeas from farmers. AGP-AMDe and ATA is collaborating with the cooperatives to produce bankable business plans for the next quarter and will work closely with banks on building a long-term relationship with partner FCUs.

Components / Activities	Potential Partners	Estimated Output for Year I	Target Beneficiaries Disaggregated by Region						Year to date Actual	Percentage of target achieved YTD	Comments
			Target	Oromia	SNNPR	Amhara	Tigray	Addis Ababa			
Component 1: Improving the Competitiveness of Selected Value Chains											
Intervention I: Enhance Marketing and Market Linkages											
Activity 1: Improve Marketing Systems and practices											
1.1: Complete the value chain analysis with other PPP partners,	ATA	VC Analysis for chickpea completed	1					1	1	100	Collaborated with ATA to conduct analysis and finalize upgrading strategy for chickpea VC
1.3: Identify CIGs, trained for chickpea production by AGP, which are incorporating small-scale irrigation **1.4:** Establish commercial input linkages for CIG's for seeds, fertilizer **1.5:** Assist CIGs in establishing a commercial linkage to the primary or cooperative union to ensure a market outlet	AGP	Number of participants benefiting from commercial linkages	500	100		400			0	0	CIGs assessed through supply chain analysis and M3 assessments; commercial linkage to CIGs not priority linkage in Q3, but AGP-AMDe will revisit in Q4
1.6: Conduct SMFM business training at the selected union and primary cooperative levels. 1.6.1 Management , Leadership, Gender	BDS Provider, FCA AGP Coordinators, FCA, FCU		3	1		2			3	100	Complete

1.6.2 Post-Harvest Handling											
		3 SMFM Training Series to FCU's									
1.6.3 Nutrition	AGP Coordinators										
1.6.4 Business Management Skills											
1.6.5 Record Keeping	AGP, FCA, FCU's										
	AGP, FCA,										
	FCU's, Savings & Credit Associations										
1.6.6. Marketing, Contracts, Sourcing	AGP, FCA, FCU's										
Activity 2: Demonstrate Specific Market Linkages											
2.1: Complete forward contracts with WFP for supply for P4P via unions.	WFP, Pepsi										
2.2: Link local buyers, traders for harvest contracts to unions; Selam Baltina, Tiger Brands. Assist in negotiation of contracts.		Number of unions benefiting from linkages	3	1		2			0	0	Activity scheduled for Q4
Activity 3: Promote Export Linkages											
3.1: Bring international traders on buyer mission to sensitize on availability and provide information on specific destination export opportunities, required quality levels, export windows.	FCA, EPOSPEA	Number of unions benefiting from linkages	3	1		2			0	0	Activity scheduled for Q4

Intervention II: Assist Transformation of Coops/Unions, Private Agribusinesses and Associations to Become Effective Service Providers											
Activity 1: Strengthen Co-ops and FCUs											
1.1: Conduct M-3 assessments of 3 cooperative partners within Dembia (Amhara), Lume and Becho (Oromia) woredas 1.1.1 Management & Leadership 1.1.2 Membership & Services 1.1.3 Accounting & Finance 1.1.4 Marketing, Service, Contracts 1.1.5 Physical Facilities & Equipment	BDS Provider, FCA	Completed M3 Assessment	3	1		2			3	100	Completed 3 M3 assessments on 3 chickpea FCUs: Tsehay, Lume Adama, Becho-Woliso
1.1.6 Findings, Recommendations, Planning									3	100	FCUs liked to trainings and revolving seed fund scheme
Activity 2: Introduce Effective Post-Harvest Handling that Reduces Losses											
2.1: Complete investment and financing plan for post-harvest and storage investments at the union and primary levels to accommodate efficient chickpea handling (storage, cleaning, grading, packaging), and marketing	FCA	Completed investment and financing plan	1					1	2	100	AGP-AMDe provided technical assistance to three FCUs in development of business plans
Activity 3: Assist Private Sector Associations and Facilitate Stakeholder Collaboration											

1.2: Develop a nutritional message strategy for chickpeas at the regional and national level.	Pepsi, MoH	Print & Media Messages for local & regional populations	5	1	1	1	1	1	0	0	Scheduled for Q4
Intervention III : Increase Reliable and Commercial Access to Improved Inputs & Farm Technology											
Activity 1: Expanded and Reliable Access to Improved Seed											
1.1: Select producer groups within and outside the 3 unions which are capable of seed production; complete training on chickpea multiplication.	FCA, Pepsi	Number of producer groups trained	4	2		2			4	100	Four producer groups selected; demonstrations to take place in Q4
1.2: Complete first phase of training to selected commercial producers of improved varieties at the primary cooperative level. Target: 10,000 producers	FCA		400	100		300			0	0	Scheduled for Q4 and Y2 to coincide with improved variety demos.
1.3: Identify availability of quality sources of foundation seed; secure supply for program development, multiplication, for distribution in outbound season.	EIAR, ATA	1500 quintals	1500	500		1000			0	0	Scheduled for Q4 and Y2 to coincide with improved variety demos
Activity 2: Improved distribution of inputs and farm technology											
2.1: Establish demonstration plan for chickpea mechanization for planting, and harvesting with cooperative unions, Omega Farms, John Deere leasing.	FCA, Pepsi, John Deere	Plan completed	1					1	0	0	Scheduled for Q4 and Y2 to coincide with improved variety demos
2.2: Through the cooperative unions, design field demonstrations for each of the 3 production areas, select sites.	Cooperatives & Unions, AGP	3 Demos linked to FCU's and primary co-ops		1		2			2	100	Draft design finalized, demo for Q4

2.2.1 Demo sites Identified & samples taken	Cooperatives & Union, AGP, IFDC	Number of sites identified	100	25		75			100	100	
2.3: Training to Cooperatives, DAs and ARC lab technicians on soil sampling techniques	Cooperatives, AGP, ARC Labs,	Number of participating co-ops	3						3	100	
2.4: ToT in soil sampling	DA's, ARC Labs, Cooperatives										
2.4.1 Sample results analyzed & recommendations made for chickpea fertilization	DA's, ARC Labs, Cooperatives	3 Analysis and Lab Tests	3	1		2			3	100	In collaboration with IFDC, samples taken and analyzed for selected sites, demos for Q4
2.4.2 Select seed varieties to be planted in the demonstration	Cooperative, AGP	TBD									
2.4.3 Review demo protocols with Cooperatives and other collaborators	Pepsi, Omega Farms	Number of participating co-ops	3	1		2			0	0	Activity scheduled for Q4

COMPONENT 2: IMPROVING ACCESS TO FINANCE

Background

Activities under component 2 improve access to finance for participants along the value chain to enable increased investment, improved productivity and expanded trade. AGP-AMDe takes a financial systems approach, but emphasizes activities that finance critical and specific agricultural transactions and investments. Through support to specific commodity sales contracts or investments in equipment that allow value chain actors to upgrade their services and the quality of their output, AGP-AMDe helps to generate a pipeline of financial transactions that can be submitted as loan applications to financial institutions. These transaction-focused efforts will lead to interventions at a broader level, by identifying those constraints related to structure capacity, risk mitigation and policy that make upgrades and transactions in the targeted value chains most difficult. Lessons learned will be communicated to policy makers, industry associations and a network of interested financial institutions.

Activities during the Quarter

During this quarter, AGP-AMDe focused its access to finance interventions around several key activities, as described below.

Intervention I: Facilitate Financing for Market Linkage Demos and Equipment Investments for Market Linkage Partners

The Access to Finance team organized a meeting of 21 top microfinance institutions and 31 agribusiness professionals in Ethiopia to facilitate potential investment deals. As a result, the Becho-Weliso FCU linked with John Deere equipment leasing company and developed an action plan on exploring leasing options for chickpea production technologies.

AGP-AMDe conducted financial and cash flow analysis of seven maize FCUs, four sesame FCUs, three chickpea FCUs, and one coffee FCU to demonstrate change in costs and return for produce and to identify opportunities for lending from financial institutions. Priority financing needs for these FCUs include working capital to purchase outputs and investment capital for warehouse construction and installation of cleaning and packaging machines. The team facilitated communications between the Commercial Bank of Ethiopia and these 15 FCUs to determine lending requirements. Based on these communications, the Access to Finance team provided technical assistance to the FCUs in developing Bankable Business Plans for presentation to the bank. These business plans will be presented to the Commercial Bank of Ethiopia in the next quarter.

Furthermore, the project facilitated discussions with the Commercial Bank of Ethiopia to identify opportunities in the sesame value chain for working capital loans backed by a warehouse receipts scheme, and discussions with the Cooperative Bank of Oromia for potential wheat, maize and honey value chain financing.

Intervention II. Prepare for increased demand for production, investment, working capital financing in Year 2 of Project

AGP-AMDe conducted a targeted financial gap analysis across the six value chains to determine priority opportunities and constraints concerning value chain financing. The team reached significant

conclusions about financial service coverage and outreach that will be incorporated into Year 2 work plan interventions and activities. The ratio of customers to financial institutions is greater than150,000 people to one service provider branch, which is far below international and African standards. Banks are primarily concentrated in Addis Ababa and the major eight regional cities of the country. Of all loans made by financial institutions, less than 15 percent of total lending is disbursed to modern and commercial agriculture. There is no bank currently involved in providing direct lending services to smallholder farmers and small and micro enterprise operators in the entire country due to a lack of competition within the banking sector, higher demand from less risky investments, collateralized lending procedures and a lack of appropriate instruments for managing risk. Based on these assessments, AGP-AMDe' s Access to Finance team conducted cost-benefit analysis that would result from project interventions of mechanization, improved use of proper agronomic practices, improved seeds and market linkages for output marketing.

AGP-AMDe also conducted financial gap assessments of savings and credit cooperatives (SACCOs) in all four project regions: 12 primary cooperatives and 2 SACCO unions in Tigray, 2 SACCO unions in Amhara, 1 SACCO union in Oromia, and 1 SACCO union in SNNPR. The results of the gap analysis show that key opportunities for SACCOs include high demand for loans by the members; a lack of major arrears faced by SACCOs; committed board and committee members; and strong membership representation from the communities in which SACCOs operate. The major problems faced by SACCOs identified in the assessment include a shortage of loan-able funds for members; a lack of support in technical expertise and internal analysis of their financial statements; inability of members to meet requests of collateral for loan process; a lack of awareness, skill and knowledge of the board and committee members on SACCOs development and improvement; lower amount of loans disbursed by the SACCOs in comparison with other lenders; a shortage of office, technology, and other facilities to run their day to day activities smoothly; a lack of training on organization, business plan development and accounting systems; a lack of well designed financial systems; and weak linkages with other financial service providers.

To support the SACCOs in solving the above problems and increase the FCUs' profitability, AGP-AMDe has prioritized the issues and started designing interventions that will be included in the Year II work plan. Because most SACCOs are not supported by audited financial information and reports, AGP-AMDe has provided technical support and training to SACCOs in analyzing financial statements so that SACCOs are able to fulfill the demands of business plan proposals. AGP-AMDe is also working with SACCO unions, which have better cash flow availability, to provide working capital loans to SACCOs to address shortages in cash flow.

Components/Activities	Potential Partners	Output Indicators	Targets					Year to date Plan	Year to date Actual	Percentage of target achieved YTD	Comments
			Total	Oromia	SNNPR	Amhara	Tigray				
COMPONENT 2: Improving Access to Finance											
Intervention I. Facilitate Financing for Market Linkage Demos and Equipment Investments for Market Linkage Partners											
Activity 1. Deliver value chain finance training for AGP-AMDe project staff, incorporating gender considerations 1.1 Adapt training materials 1.2 Prepare training materials and training facilities/resources 1.3 Conduct training	Commercial banks, MFIs, SACCOs, AEMFI, Nyala Insurance	No of trainees	60					30	21	70	The training was given only for Addis and Oromia staff and the remaining will be organized in the month of August.
Activity 2. Facilitate financing for market linkages demonstrations. Prepare a term sheet with the AGP-AMDe value chain experts and conduct field trips to meet with the cooperative unions and conduct basic due diligence to prove up the viability of the transaction. Take the verified transactions to financial institutions for their input and expression of interest in arranging financing.	Banks, cooperative unions, end-market buyers, DAs							0	0	0	Discussed with Association of Ethiopian Micro Finance Institutions, (AEMFI) to identify possible ways of partnership in conducting trainings to MFIs, produce new financial products/services. So far 11 partners identified (CBE, AEMFI, MFI, Cooperative bank of Oromia, Abyssinia Bank, Zemen Bank, Trade and industry bureau, Cooperative agency and different FCUs and primary Coops...)

2.1 Collaborate with VC specialists to define financing requirements of each VC model	Galama, Raya Wakena, Sekomendo FCUs, Damot, Bedele, Sidama, Gibe Tedessa, FCUs							0	0	0	
2.1.1 Field visit to wheat and maize FCUs and buyers - prepare term sheet on required transactions, conduct due diligence to prove up viability of transaction	FCUs							6	9	150	7 FCUs are specifically assessed for further capacity building interventions and financial needs of these 7 FCUs identified.
2.1.2 Field visit to selected honey cooperatives and industrial buyers	Beza Mar Agro, Comel Agro,Tsedey Honey; Ediget Chora Co-op, and Zembaba, Ashengie, Kaffa and Bedelle FCUs							3	1	33	Field visit was made to Beza Mar.
2.1.3 Field visit to Tigray federation and FCUs on sesame	Tigray Federation; Dansha and Humera FCUs	No. of FCUs						2	4	200	

2.1.4 Field visit to chickpea FCUs and WFP	Identified FCUs, Selam Baltina, Tiger Brands WFP							3	3	100	
2.2 Assist in development of business plans to facilitate discussion with lenders. These include CBE for working capital loans (backed by WHR in case of sesame); CBE, Zemen Bank and Cooperative Bank of Oromia for wheat, maize, sesame and honey VC financing; Zemen and Abyssinia for DCA- backed financing in maize VC.	Identified FCUs and cooperatives							8	8	100	Partnership is developed with CBE, CBO, Zemen Bank and Abyssinia bank and 8 FCUs were identified for the linkage.
2.3 Facilitate agreements between market linkage demo participants and financial institutions. Track financing transactions in process and organize TA and other support as required to complete the financing transaction.								0	0	0	Potential financial institutions were identified (CBE, CBO, Zemen and Abyssinia banks) and discussed on the way to collaborate. Tracking records of transactions for 11 FCUs processed for support and intervention.
2.4 Facilitate closing of financial transactions for:								0	0	0	
2.4.1 FCUs and WFP/ other buyer for grains	CBE, Zemen Bank, DCA/Serengeti Advisers, CB of Oromia	Financial transactions facilitated	4	3		1		2	2	100	
2.4.2 FCUs and WFP buyer for chickpea	CB of Oromia, CBE		2	2				0	0	0	The plan is for September and start up work (identification of FCUs, buyers) is completed
2.4.3 Co-ops/outgrowers and honey processors	Honey Buyers, MFIs		4	1	1	1	1	3	4	133	This is an ongoing activity.

2.4.4 FCUs and Sesame Federation	CBE; ECX in case of Warehouse Receipt Financing		2				2	2	5	250	Linking of 4 FCUs and 1 federation with Commercial Bank of Ethiopia. Is complete
2.5 Document constraints arising that prevent a transaction from being completed and share that information within AGP-AMDe and with USAID, ATA and other organizations that are working at the policy level to improve the enabling environment for access to finance.	M&E, MIS, VC team leaders							0	0	0	Opportunities and constraints to access to finance for each VCs were identified and information are shared with ATA, USAID and MOA.
Activity 3. Coordinate and facilitate lending to VC actors through the use of loan guarantee programs, like DCA. Meet with USAID DCA and partner banks to discuss criteria for participation and strategize about linkages with AGP/AGP-AMDe beneficiaries. Develop other linkages with partners including WFP	Abyssinia Ban, Awash Bank, Zemen Bank, Dashin Bank and WFP, Sereneti Advisors	Meetings held	4					2	3	150	Communicating banks under the DCA facility completed and beneficiaries for DCA identified.

Activity 4. Facilitate and promote equipment leasing product acceptance as a new instrument for financing for agricultural equipment such as seed cleaning/grading machines, tractors, and packaging equipment, by linking the specific cooperatives or private operators with the financial institutions that fund the leasing companies	Zemen, Abyssinia	No of linkages with service providers of leasing	2					2	3	150	Becho Wolliso, Lume Adama and Tshay linked with John Deere financial leasing company.
Intervention II. Prepare for increased demand for production, investment, working capital financing in Year 2 of Project											
Activity 1. Generate pro forma cash flow projections using ACDI/VOCA Cash Flow Analysis Tool, to demonstrate change in costs and return for producers, as they adopt high-yield inputs and practices in each value chain.								0	0	0	
1.1 Complete cash flow modules and projections		VC modules completed	12					12	12	100	7 for Maize, 3 for Chickpea, 1 for Coffee and 1 for Sesame
1.2 Incorporate results into SMFM (including financial literacy modules), staff VC Finance Training and National Workshop		(Cash flow and financial literacy) module developed	**1**					1	1	100	The activity is a continuous process and so far 95% of the plan was completed

Activity 2. Identify crop insurance opportunities to mitigate financing risk. Meet with Nyala Insurance to formalize program to target AGP cooperatives and MFIs in the project regions for provision of crop insurance. Then identify cooperatives in the project regions interested in crop insurance and facilitate linkages with Nyala Insurance.	Nyala Insurance	No. of co-ops linked	4	1	1	1	1	0	0	0	So far meetings and discussions have been made with Nyala Insurance and microfinance institutions to link identified for farmers coops (one from each region)
Activity 3. Assess potential for mobile banking services (Zemen Bank's Mobile and Internet Banking) to reduce payment costs for smallholder farmers.	Zemen Bank	No of promotions held	4	1	1	1	1	4	1	25	
Activity 4. Conduct demand survey of access to finance to identify specific needs that impact gender inclusion and access to financial services to ensure that products and services meet the particular needs of both women and men.	Banks, MFI	No of demand survey conducted	4	1	1	1	1	2	4	200	
4.1 Develop financial demand survey guide & survey questionnaire and conduct random sample surveys with regional Rural Finance Service Providers (RFSPs).											
4.2 Incorporate the survey findings into trainings, workshops and policy initiatives that upgrade the level of gender sensitive solutions to improving access to financial services for both women and men.											

Activity 5: Identify and review investment interests of equity investment funds targeting Ethiopian agribusiness, in order to identify possible investments in targeted upgrades of AMDe's value chains	Ascent. Renew							0	0	0	
Activity 6: Deliver financial literacy training through SMFM.	Cooperative banks, SACCOs, associations,	No of co-ops identified	20	8	5	5	2	0	0	0	The plan is for the next quarter
Activity 7. Conduct national workshop with sector stakeholders to review current status of financial sector and discuss constraints and opportunities related to financing target VCs. Share lessons related to market linkage demo experience, as well as results of Cash Flow Analysis Tool, crop insurance, mobile banking and demand survey described above. Use forum to screen for FIs most interested in expanding their market and services to reach key agribusinesses, co- ops and producers in 6 VCs.	National Bank, commercial banks, development banks, MFIs, cooperative banks, SACCOs, associations, Ethiopian Bankers Association	No of participants attending the workshop (M,F)	50					0	0	0	The training will be conducted in September 2012. Preparation work for the workshop completed;; objectives are set, presentation topics identified, participants identified.
7.1. Identify the potential participants from banks, MFI, SACCOs, cooperative banks, private banks, ATA, Financial Intelligence Agency etc.											
7.2 Develop and plan the discussion points and identify presenters and/or speakers from concerned offices on the identified topics											

7.3 Assign professional facilitator(s) for the workshop											
7.4 Arrange logistics and other necessary materials											
7.5 Conduct the national workshop											
7.6 Develop shortlist of interested											
Activity 8. Assess agricultural and value chain finance products of shortlisted FIs and sign MOUs for collaboration and capacity building in Year 2.								0	0	0	AGP-AMDe facilitated meetings with 21 MFIs and ways of collaborations identified and agreed.

COMPONENT 3: IMPROVING THE ENABLING ENVIRONMENT OF SELECTED VALUE CHAINS

Background

Component 3 works closely with the GoE on various policies related to improving the enabling environment for value chain development, including improved private sector agribusiness performance, greater access to inputs, and increased value-addition of services. Given the critical importance of facilitating an effective enabling environment, initially AGP-AMDe's work is focusing in the following interrelated areas: 1) tripling fertilizer usage growth; 2) massive expansion of the seed industry; 3) acceleration of the generation and application of improved technology for increasing soil fertility, with emphasis on raising on-farm productivity and hence the profitability of fertilizer; and 4) increasing women's access to new technologies and information to garner their support to increase fertilizer and improved seed demand.

To ensure coordination in our efforts, the AGP-AMDe team is collaborating with representatives from AGP, ATA and the Director of the Planning Directorate within the MoA. Additionally the team will holds stakeholder meetings to include appropriate representatives of the private sector and of the cooperative sector to explore the integrated complexity of fertilizer, seed, improved technology and gender issues.

Activities during the Quarter

Intervention I: Overall policy development for value chains
In the reporting quarter, the team embarked on a high-level business enabling environment assessment of the six AGP-AMDe value chains. The assessment is applying a Value Chain Commercial Legal Institutional Reform (VC-CLIR) approach to assess how laws, regulations, policies, norms and practices are either facilitating or hindering the movement of products or services between actors along the selected value chains. This approach will enable the project to determine where the bottlenecks for commercial agribusiness activities are within the selected value chains, and to identify opportunities for expanded commercial activities and as champions for reforms. The assessment team debriefed USAID on June 12, 2012 and the final report will be submitted in the next quarter.

Intervention II: CCA for co-ops and traders in fertilizer supply chain
In June, AGP-AMDe organized a major conference on enabling environment issues in the fertilizer value chain (Annex III and IV). The conference was the centerpiece of an effort to enhance capacity of a wide selection of key policy-makers to think in broad terms about critical issues in achieving a high growth rate in fertilizer use. It was also an important step in obtaining appropriate policy changes.

A key paper was presented by the Director of Agricultural Inputs Marketing Directorate in the Ministry of Agriculture, Teshome Lakew (Annex V). Mr. Lakew made it clear that there are no barriers from the government side to the entry of private traders into fertilizer distribution. AGP-AMDe is pursuing this important statement in terms of what the licensing requirements are to engage in fertilizer distribution at the regional level, how they compare with those for grain trading (a similar

bulk commodity) and the extent to which private traders will now enter the fertilizer distribution market. This could lead to a major increase in fertilizer distribution channels and to the private sector share of this activity.

Intervention IV: CCA for coffee value chain

In collaboration with CQI, the team held comprehensive discussions with ATA, FCA, Limmu FCU and Jimma Agricultural Research Center of how best to proceed with focus groups in the Garden Coffee area. Agreement was reached with stakeholders that the stakeholders need to focus future efforts on women coffee farmers, who dominate garden coffee, and their desire to use their knowledge of how to produce quality coffee as a means to earning a premium price. Focus groups planned for next quarter with cooperatives will examine how to facilitate an improved cooperative structure for the participation of women coffee farmers in the production of premium coffee.

Components / Activities	Potential Partners	Target Beneficiaries Disaggregated by Region						Year to date Actual	Percentage of target achieved YTD	Comments
		Target	Oromia	SNNPR	Amhara	Tigray	Addis Ababa			
COMPONENT 3: Improving the Enabling environment										
Intervention I: Overall policy development for value chains										
Activity 1: Assessment and partnerships formation									100%	
Activity 2: Cross-cutting issues are integrated into assessments and partnerships									100%	
Activity 3: Concept note for overall capacity development									100%	
Activity 4: Capacity development events									70%	
Intervention II: CCA for co-ops and traders in fertilizer supply chain										
Activity 1: Implement CCA in four regions								Completed	100%	
Activity 2: Women's participation analysis for input supply	ATA, AGP, IFPRI							Completed	100%	
Activity 3: Fertilizer constraints analysis for co-ops and private traders								Completed	100%	
Intervention III: Discussion and design										
Activity 1: Capacity development priorities for increasing women's participation in co-ops - consultation event	ATA, AGP							Completed	100%	
Activity 2: Report on constraints to women's participation in co-ops and capacity building action plan for improving enabling environment	ATA, AGP	**E STTA**						Completed	100%	

Sub-Activity 2.1: Implement action plan on constraints for women's participation in co-ops by improving enabling environment	AGP, AMDe	**E STTA**						Not yet completed	50%	Action plan developed & activities on progress
Sub-Activity 2.2: Monitor results of action plan on reducing constraints for women's co-op participation by improving enabling environment	AGP, IFPRI	**E STTA**						Not yet completed	50%	Action plan developed & activities on progress
Activity 3: Report on CCA for fertilizer value chain and action plan for improving competitiveness of co-ops and private traders in wheat, maize and sesame value chains		**E STTA**						Completed	100%	
Sub-Activity 3.1: Implement action plan for improving fertilizer supply chain for wheat, maize and sesame value chains	AGP, cooperatives, traders							Not yet completed	0%	the implementation will be in Yr II work plan
Sub-Activity 3.2: Monitor results of action plan for increasing competitiveness of co-ops and private traders in fertilizer value chain for wheat, maize and sesame	AGP, IFPRI							Not yet completed	0%	the implementation will be in Yr II work plan
Sub-Activity 3.3: Conference on enabling environment for fertilizer	ATA, AGP							Completed	100%	
Intervention IV: CCA for coffee value chain										
4.1 Design of assessment for coffee value chain	AGP-AMDe VC team, ECX							Completed	100%	
4.2 Implement CCA in coffee regions of AGP	AGP, AGP-AMDe regional managers							Not yet completed	50%	CCA has been implemented in Jimma area (Oromia), and the activity will continue in next quarter in SNNPR

4.3 Women's participation analysis for VC for enabling environment constraints	USAID/CIAFS							On going	50%	will be completed in next QR
4.4 CCA analysis for co-ops and private trade and processing in coffee								On going	50%	CCA has been implemented in Jimma area (Oromia), and the activity will continue in next quarter in SNNPR
4.5 Design Interventions for coffee VC including women's participation	ECX, USAID/CIAFS							On going	50%	will be completed in next QR
Intervention V: Enabling environment for access to finance for value chains										
Activity 1: Analysis and policy recommendations to address liquidity problem in private banks	ATA, AGP, USAID DCA Program, National Bank of Ethiopia, private banks, IFC/World Bank							Completed	100%	

COMPONENT 4: STIMULATING INCREASED INNOVATION AND INVESTMENT

Background

The Innovation and Demonstration Fund aims to facilitate the introduction of and investment in a broad range of competiveness-enhancing activities. The goal of the grants funding is to provide flexible mechanisms to reduce risks, introduce innovations, leverage resources, stimulate private sector investment and mitigate constraints in the target value chains. Project staff works closely with the PPP advisor and the grants/PPP manager to identify the most appropriate collaborating partners for innovative grants on a cost-sharing basis. The potential partners represent a cross-section of both public and private stakeholders. Women-owned business applicants and organizations that can demonstrate improved gender equity are encouraged to apply.

Activities during the Quarter

The grants management team held strategy meetings with team leaders in each value chain to flesh out a detailed strategy and priority investments across the value chains for grants rollout. After USAID's approval of the Grants Manual during the quarter, AGP-AMDe has proceeded rigorously with roll out of requests for proposals for priority investments in the maize, sesame and chickpea value chains, as outlined above. The team worked with applicants to develop business plans, as part of the application, and has already identified three FCUs in the chickpea value chain to facilitate access to improved seed and output financing. The team will work with the sesame and maize FCUs to finalize business plans, present to banks for financing and consider for potential innovation grant investment from AGP-AMDe in the next quarter.

The multi-stakeholder platform (MSP) meetings, held under each value chain, have been used to explain AGP-AMDe objectives for innovation grant fund investment to participating actors and prospective partners, and to develop an improved understanding of how to engage in strategic partnerships with AGP-AMDe. The platform has also helped to share ideas and to develop a clearer understanding about the concept of leveraging existing resources and the basic idea behind cost share. As a result, 11 FCUs have developed and submitted bankable business plans, with guidance on preparation provided by AGP-AMDe. The project is holding intensive discussions with financial institutions, including the Commercial Bank of Ethiopia, to help improve FCU access to bank loans and to improve the prospect of profitable long-term investments for these financial institutions in the agriculture sector.

Based these MSP meetings and a series of assessments and deliberations, the Setit Humera, Dansha Aurora, Tekeze and Lemlem Welkayit FCUs have submitted business plans for grant funding to support trials of new sesame varieties and fertilizer on six demonstration sites in the four target AGP woredas in the sesame value chain.

M&E AND BASELINE STUDY

Background

Kimetrica is undertaking the baseline, midterm and endline studies and identifying project metrics and indicators. The baseline study is based on a household questionnaire that includes modules capturing data on characteristics of household farming practices; health and behavior and attitudes; nutrition, stunting and wasting; and household income, which is based on methods used in the World Bank's Living Standards Measurement Surveys. The baseline survey also includes a treatment (project beneficiaries) and control (non-beneficiaries) group, as this will greatly facilitate impact surveys that may take place during and at the end of the project. Given that the project is targeting 1 million smallholder farmers in 83 woredas, the baseline survey covers 2,100 households, randomly selected from three clusters within each woreda in addition to approximately 30 focus group interviews with community leaders, including traders and innovators.

Activities during the Quarter

The AGP-AMDe team made significant progress on M&E activities during the quarter, and completed several key baseline milestones set out in the work plan (Table 10). After completing the household and institutional surveys in the previous quarter, AGP-AMDe finalized the field work and performed data entry of results by April 28. The team completed a draft of the baseline report by May 31, 2012 and shared preliminary results with USAID, AGP, GoE and other key stakeholders for feedback on June 14. ACDI/VOCA's Senior Director of M&E traveled to Ethiopia to train staff in M&E and lead the presentation of preliminary results to USAID. AGP-AMDe is incorporating the feedback on this preliminary draft into the final baseline.

As agreed with USAID, AGP-AMDe is also validating the baseline results against data from the AGP baseline, conducted separately by the International Food Policy Research Institute (IFPRI). However, the release of the AGP baseline results from IFPRI has been significantly delayed from the anticipated deadline and had not been received by AGP-AMDe as of June 30. This delay has hindered AGP-AMDe's ability to effectively validate the project baseline. Once the AGP baseline data is released from IFPRI in the next quarter, AGP-AMDe will finalize validation and submit the final baseline, along with the final M&E plan and Performance Monitoring Plan (PMP) with targets, and present findings to USAID.

Additionally, M&E partner Kimetrica began populating the M&E system ki-projects™ in June with the survey data, including indicators, baseline values, and targets. Kimetrica will be able to complete entry of final baseline data into the M&E system once the AGP baseline data is received from IFPRI and the validation of AGP-AMDe's baseline is complete.

Table 10: Completed Baseline Milestones

USAID/Ethiopia AGP-AMDe Baseline Milestones	
End Field Work	April 21, 2012
Data Entry Finalized	April 28, 2012
Draft Report Finalized	May 31, 2012
Presentation of Draft Baseline Results to USAID	June 14, 2012

CROSS-CUTTING THEMES

The AGP-AMDe team and subcontracting partners are addressing cross-cutting issues and themes that touch on all value chain activities and project components. While they have in part been integrated into the value chain interventions in the above sections, there are also cross-cutting issues that are applicable to all the value chains, as summarized below.

GENDER

Background

AGP-AMDe will mainstream gender equity across all program components, in addition to ensuring that a targeted approach is employed, designating specific activities and resources towards lessening the inequality between women and men. AGP-AMDe's overall approach is to support the development and adoption of organizational systems and tools to identify and address inequality, build public and private sector awareness and capacity, strengthen networks of individuals and organizations promoting gender equity, create public awareness and target innovation investments in areas of benefit to women. Specifically, AGP-AMDe's goal is to achieve at least 30 percent women's participation—with a corresponding share of the benefits accruing to them—in all program-supported interventions measured by the number of female stakeholders participating in program activities, returns to female participants and the amount of investment made by the project.

Activities during the Quarter

As a result of the consultation on gender held last quarter, and in line with the strategy of increasing women's membership and leadership in cooperatives, AGP-AMDe is working to develop gender integration opportunities in the garden coffee area of the coffee value chain. The project gender team is shifting focus group efforts towards development of a clear strategy in garden coffee with emphasis on the dominant role of women in that sector.

The Sr. Gender Specialist also provided technical guidance to three FCUs in the chickpea value chain for developing gender inclusive business plans for increased women's membership and leadership in cooperatives, as part of the chickpea FCU grant applications for the revolving seed fund under Component 4.

NUTRITION & HIV/AIDS

Background

Ethiopia has one of the world's highest incidences of undernutrition and chronic malnutrition among children—a staggering 47 percent. The goal of AGP-AMDe nutrition and HIV/AIDS interventions is to contribute to the overall sustainability of the achievements of the project in reducing poverty and hunger by improving the nutritional status and reducing the prevalence of HIV/AIDs in target woredas. The AGP-AMDe team works to improve the nutritional status of households engaged in the target value chains and PLWHA by increasing their household food production and/or income. In order to mitigate the prevalence of HIV/AIDS and malnutrition, especially among children and women, awareness-raising activities will be directed to the communities in the target woredas. The team will also focus on HIV prevention strategies through decentralization of training events and input supply and marketing linkages to reduce travel and family separation. Each training event will

incorporate HIV prevention messages for wider dissemination and outreach. All components will seek appropriate inclusion of disadvantaged people, including PLWHA.

Activities during the Quarter

During this quarter, AGP-AMDe, held a series of discussions with USAID regarding areas for partnership with implementing partners under Health, AIDS, Population and Nutrition (HAPN) projects in Ethiopia. AGP-AMDe submitted a proposed scope of work to USAID in June detailing potential collaboration themes with these implementing partners. These themes include providing training and technical assistance to IPs to enable them to conduct value chain analyses and develop value chain activities; providing business planning training to implementing partners; offering market linkage support—training on AGP-AMDe approach and direct linkages where applicable with AGP-AMDe value chains; and facilitating savings group linkages with AGP-AMDe partner microfinance institutions (MFIs) and SACCOS. As of June 30, AGP-AMDe had not received a response from USAID/HAPN on the proposed scope of work.

Additionally, AGP-AMDe hired a short term nutrition consultant to conduct an analysis of nutritional messages and behavior changes messages currently endorsed by the Ministry of Health, document the messages and make recommendations for enhanced messaging under AGP-AMDe. This research will coincide with phase one of the barrier analysis, to be conducted in the next quarter. Under this consultancy, AGP-AMDe is also mapping nutrition actors and activities, and HIV support groups/associations operating in target project areas, disaggregated by region/zone/woreda. This data will facilitate improved collaboration with existing nutrition and HIV/AIDS supporting partners, and it will generate more efficient integration of nutrition and HIV/AIDS activities across value chains by focusing strategies.

TRANSPORTATION AND LOGISTICS

Background

Crown Agents is participating in several activities focused on transport, customs, roads, railways, ports, warehouses and policies that govern transportation within Ethiopia. Route analysis will be performed to identify problem areas, transport bottlenecks, including nontariff barriers and issues related to customs and custom practices. Initial analysis indicates a mix of institutional and capacity constraints across various private and public sector stakeholders. The project prioritizes areas that need to be addressed in the short, medium and long term to enable produce to be transported, stored and sold domestically and abroad in an increasingly efficient manner. AGP-AMDe is identifying and assessing stores and warehouses and determining their availability and adequacy in terms of capacity, location, safety and security.

Activities during the Quarter

During this quarter, AGP-AMDe subcontractor Crown Agents (CA-USA) commenced the Warehouse Assessments and finalized planning for a Transport and Customs Connectivity Assessment. Preliminary findings show a lack of capacity within the warehouses is partly due to lack of stacking / racking equipment, and palletization. This means that use of the total floor space is very often not maximized. All handling is manual; so far no mechanical handling equipment has been in evidence. Handling practices are inefficient and dangerous. CA-USA suspect a high proportion of cargo is lost due to poor handling and stacking. Instances of poor warehouse design is also evident. For example, loading bays at the wrong height for vehicle beds. Also, stacking processes currently used do not

facilitate air circulation around cargoes. Warehouse management training will be very important in Year 2.

Where appropriate, AGP-AMDe is providing 50 percent cost share funding to build new warehouses. It may be that by improving / equipping existing warehouses, the number of new builds can be reduced. In relation to type of construction for new builds, it will be important that handling requirements are considered. Pre-fabricated steel is not appropriate if the current method of direct stacking floor to roof is continued as too much pressure is exerted on the warehouse side walls. This needs to be carefully considered.

So far, all inventory control systems evidenced have used dated manual / paper processes. These systems need to be reviewed as part of warehouse management training and investment planning.

ENVIRONMENT/NRM

Background

AGP-AMDe tracks environmental impact through its Environmental Compliance. Cumulative impact of anticipated intensification of agricultural production is mitigated by promulgation of environmentally sustainable agricultural practices and technologies. It is anticipated that these practices and technologies will lead to increased productivity and minimize the need to increase land area under cultivation. Inputs provided to farmers include seeds and fertilizers. Only available, in-country-certified seeds are provided, and only fertilizers approved by the local regulatory authorities are introduced and utilized. Potential users are trained in proper fertilizer handling, storage, use and application, and fertilizers are employed according to the best practices, promoting integrated soil fertility management. There are currently no plans to demonstrate or distribute pesticides; however in the event that demonstration of pesticides is deemed necessary, the project will develop or adapt an existing PERSUAP.

Activities during the Quarter

After the AGP-AMDe team completed and submitted an Environmental Review and Report last quarter, the team finalized a scope of work for the completion of the Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP) and began updating the existing PERSUAP with AGP-AMDe relevant considerations for improved fertilizer related activities. The PERSUAP consultancy is expected to be completed by August 2012.

PROJECT ADMINISTRATION

The AGP-AMDe team has continued to ensure efficient project operations and management. Several support staff from ACDI/VOCA's headquarters office travelled to Ethiopia to assist with value chain development, access to finance, communication strategies, recruitment, operational procedures and reporting structures. Managing Director of Enterprise Development Ruth Campbell travelled to Ethiopia to provide project oversight and senior value chain development guidance to project staff as they began the Y2 work planning process. Deputy Director Catherine Hayes travelled to Ethiopia to support recruitment of long term local staff, assist the Public-Private Partnership (PPP) Advisor in building staff capacity for innovation grant fund management and solidify project reporting and communications procedures with staff. Specialized cash flow analysis and deal facilitation support for Component 2 Access to Finance was provided by Technical Managing Director of Financial Services Doug Leavens and Senior Project Coordinator Dun Grover.

Additionally, several activities outlined in the Component 1 and Component 3 interventions required the provision of highly specialized short term technical assistance. AGP-AMDe provided a highly qualified consultant to fly to Ethiopia from the United States to lead the Business Enabling Environment Assessment conducted under Component 3. Under the honey value chain, two beekeeping and bee product marketing experts flew to Ethiopia to successfully lead two assessments of bee product diversification and production, and bee product marketing and processing.

Overall, these staff and consultants provided specialized technical and operational capacity building assistance to project staff in several areas including value chain facilitation, finance, honey value chain competitiveness, public relations and communications, recruitment, procurement and reporting.

The AGP-AMDe project completed the purchase five additional vehicles, with one more being finalized for the next quarter. The five purchased vehicles were in transit to Ethiopia as of June 30. Additionally the team finalized the procurement of a high capacity printer, three micro-servers for the regional offices for shared filed space and computers and printers for the regional offices.

However, AGP-AMDe's progress has also been inhibited in key implementation areas due to delays in responses on approval actions from USAID:

- ACDI/VOCA concluded initial submissions for the Task Order (TO) Modification in August 2011, but did not receive a revised TO Modification from USAID until on May 16, 2012. ACDI/VOCA responded to this TO Modification on May 23, 2012, but had not received a response from USAID as of June 30, 2012. Additionally, ACDI/VOCA had submitted a notification of limitation of funds and request for additional obligation on May 10, 2012. The obligation increase was to be included in the TO Modification. However, the delay resulted in a serious state of reduced remaining obligation of funds for project implementation. This delay was further compounded by the funding requests from ACDI/VOCA subcontractors, which ACDI/VOCA is unable to meet until receipt of the additional funds requested in May 2012. As of June 30, 2012, ACDI/VOCA had not received a revised TO Modification or response to the request for additional obligation from USAID.
- The final revised grants manual was submitted for USAID approval by ACDI/VOCA in February 2012. Approval was not received by ACDI/VOCA until May 17, 2012, causing substantial delays on the project's ability to administer one of the major components of AGP-AMDe.

- ACDI VOCA submitted the draft web portal to USAID on June 22, 2012, and was subsequently advised that project specific websites are no longer allowed. The USAID/Ethiopia Mission continues to await a response from Feed the Future for guidance related to branding and marking of websites for Feed the Future projects globally. AGP-AMDe designed the web portal as a knowledge management and market facilitation tool for the value chain stakeholders. This delay negatively impacts AGP-AMDe's ability to conduct effective knowledge management under the project.
- Submission of AGP-AMDe's final baseline report and PMP had been delayed due to challenges in accessing IFPRI data from the AGP project for validation, as noted above. To date, AGP-AMDe has not received the necessary information from IFPRI.

Figure 1: AGP-AMDe Organizational Chart—Addis Ababa Office

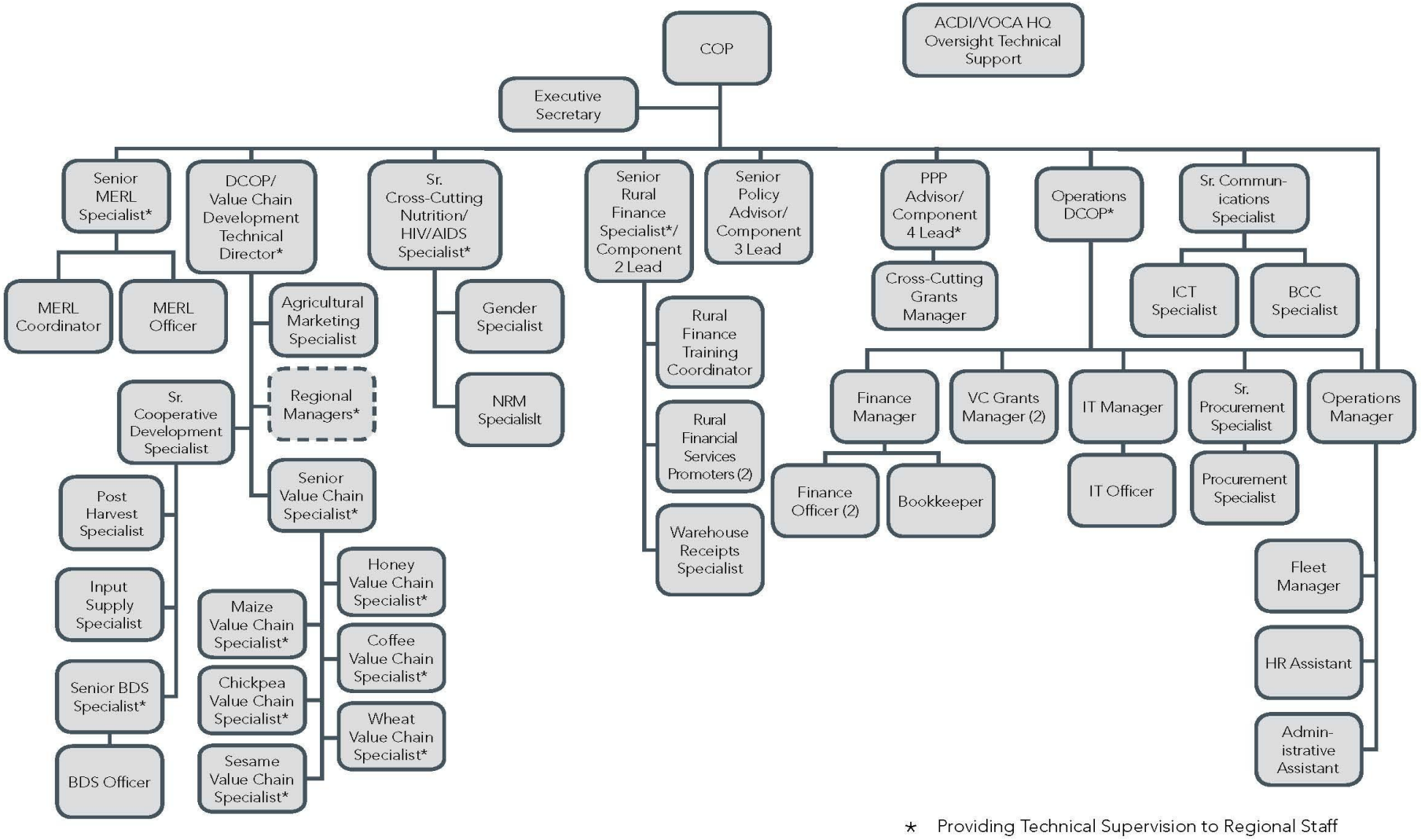
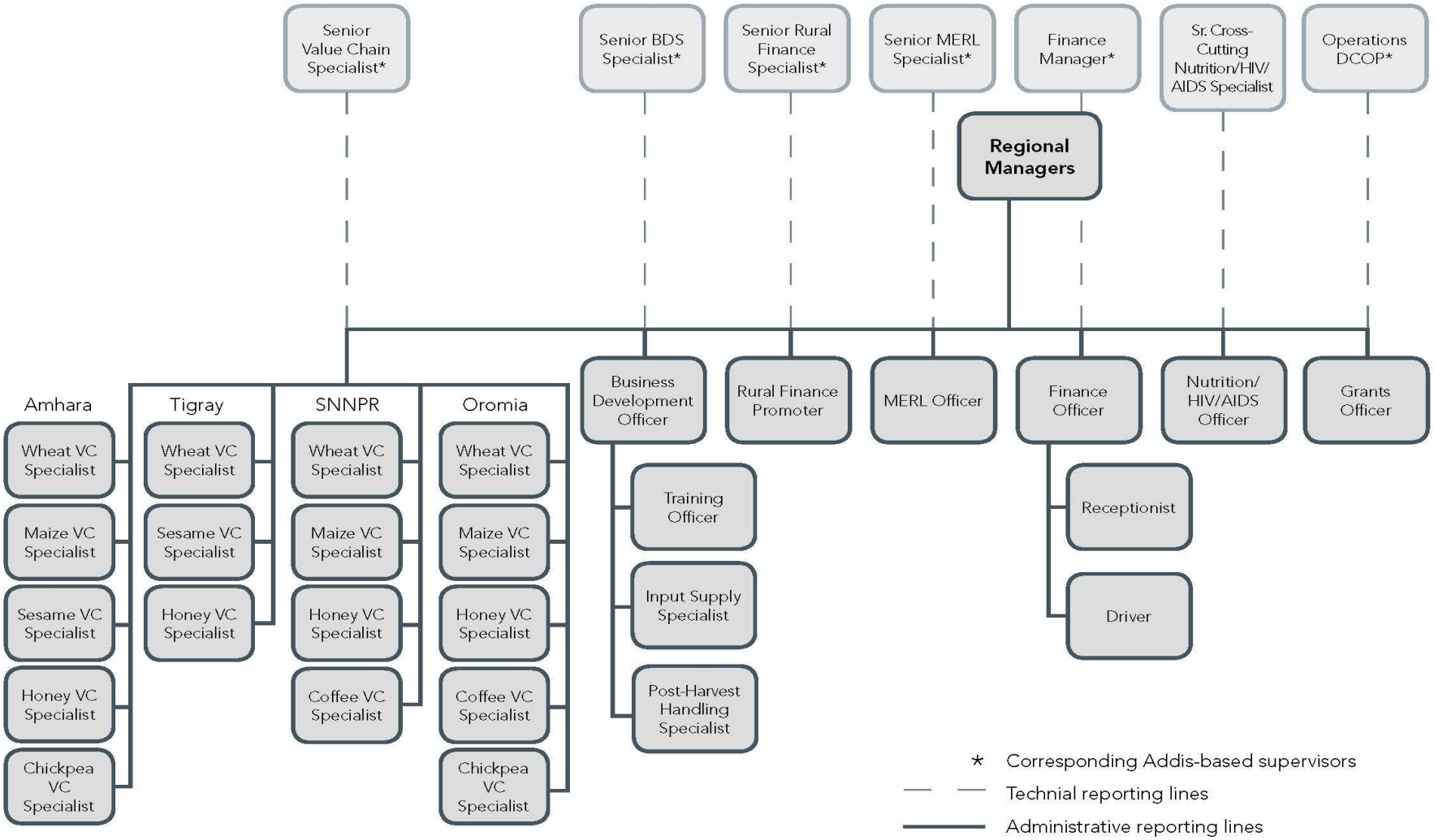


Figure 2: AGP-AMDe Organizational Chart—Regional Offices



COMMUNICATION AND INTEGRATION STRATEGIES

Background

AGP-AMDe's communication and integration strategy is designed to serve as a tool that ensures maximum coordination with all partners implementing the different components of AGP and other USAID-funded projects engaged in supporting development endeavors in the country. AGP-AMDe communicates with all its partners and stakeholders along the value chain proactively at federal, regional, zonal and woreda levels giving two-way feedback to the stakeholders involved, thus effectively integrating the activities of all those involved.

Activities during the Quarter

In November and December 2011, candidates for both of Danya's full-time positions, behavior change communication (BCC) manager and information communication and technology (ICT) manager were identified and submitted to USAID/Ethiopia. These two staff positions are integral to Danya's success on the project. Unfortunately these candidates have not yet been approved. Due to this significant delay, Danya lost the BCC manager candidate to another USAID-funded project, and has experienced delays in the development of the project website, the planned communications assessment and further development of behavior change communication messaging. AGP-AMDe submitted another candidate for Danya's BCC Manager position on June 4, 2012 and had not received a response from USAID as of June 30, 2012.

AGP-AMDe also submitted a proposed candidate for approval to fill the Sr. Communications Specialist position on June 4, 2012. The scope of work for this position includes the following: management of all communication requirements of the project, including creation of a communications strategy and branding and marking of project activities as per USAID branding guidelines; oversight of the quality and frequency of all project messaging to the donor, project beneficiaries and Ethiopian public; review and creation of all public information and learning materials, including the development and maintenance of public relations materials and dissemination of project information, scene setters, reports, success stories, lessons learned and other communication materials to the project's various audiences and constituencies. This position is imperative to success of project communications and integration strategies. As of June 30, 2012, AGP-AMDe had not received a response for USAID on this approval request.

QUARTERLY BUDGET

No.	Line Item	Total Budget	Previous Costs	Current Quarter (Apr - Jun 2012)	Wheat	Maize	Coffee	Honey	Sesame	Chickpeas	Total Costs May 2, 2011 - Jun 30, 2012	Remaining Funds
1	**Salaries and Wages and Fringe Benefits**	**$8,608,234**	**$719,593**	**$398,644**	**$108,502**	**$20,340**	**$60,345**	**$6,667**	**$154,242**	**$48,548**	**$1,118,237**	**$7,489,997**
	C1 - VC Competitiveness		604,460	333,460	88,575	16,650	51,116	5,415	133,650	38,054	$ 937,919	
	C2 - Access to Finance		20,029	11,261	3,322	617	1,629	207	3,812	1,672	$ 31,289	
	C3 - Enabling Environment		95,105	53,923	16,605	3,072	7,599	1,045	16,781	8,821	$ 149,028	
2	**Subcontracts**	**$17,103,982**	**$734,801**	**$291,477**	**$57,957**	**$11,315**	**$50,366**	**$3,290**	**$158,044**	**$10,506**	**$1,026,279**	**$16,077,703**
	C1 - VC Competitiveness		617,235	263,436	51,520	10,084	45,772	2,909	144,663	8,489	$ 880,671	
	C2 - Access to Finance		20,452	5,922	1,279	247	994	74	2,996	332	$ 26,374	
	C3 - Enabling Environment		97,115	22,120	5,158	985	3,600	306	10,385	1,685	$ 119,234	
3	**Sub-grants**	**$14,200,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$14,200,000**
	C4 - Innovation & Investment		-	-	-	-	-	-	-	-	-	
4	**Other Direct Costs**	**$3,788,536**	**$633,141**	**$386,282**	**$99,919**	**$18,841**	**$59,998**	**$6,073**	**$160,510**	**$40,942**	**$1,019,423**	**$2,769,113**
	C1 - VC Competitiveness		531,840	328,295	82,498	15,610	51,699	4,982	141,543	31,964	$ 860,136	
	C2 - Access to Finance		17,622	10,302	2,950	550	1,517	183	3,676	1,425	$ 27,924	
	C3 - Enabling Environment		83,679	47,685	14,471	2,681	6,782	908	15,290	7,552	$ 131,363	
5	**Indirect Costs**	**$4,214,901**	**$459,930**	**$266,875**	**$70,863**	**$13,321**	**$40,916**	**$4,332**	**$107,016**	**$30,426**	**$726,804**	**$3,488,097**
	C1 - VC Competitiveness		386,342	224,997	58,165	10,968	34,957	3,535	93,566	23,806	$ 611,339	
	C2 - Access to Finance		12,801	7,331	2,133	397	1,070	133	2,546	1,053	$ 20,132	
	C3 - Enabling Environment		60,786	34,547	10,566	1,956	4,890	664	10,904	5,567	$ 95,333	
6	**Total Estimated Cost (1 to 5)**	**$47,915,653**	**$ 2,547,465**	**$ 1,343,277**	**$ 337,241**	**$ 63,817**	**$ 211,625**	**$ 20,361**	**$ 579,811**	**$ 130,422**	**$ 3,890,742**	**$44,024,911**
7	Earned Fixed Fee (up to the ceiling amount)	$1,969,783	127,373	67,164	16,862	3,191	10,581	1,018	28,991	6,521	$ 194,537	$ 1,775,246
8	**Total Estimated Cost plus Fee (6+7)**	**$49,885,436**	**$ 2,674,838**	**$ 1,410,441**	**$ 354,103**	**$ 67,008**	**$ 222,206**	**$ 21,379**	**$ 608,802**	**$ 136,943**	**$ 4,085,279**	**$45,800,157**

ANNEXES

Annex I. Ethiopian Commodities Exchange Coffee Standards Report June 2012, K.C. O'Keefe

Annex II. AGP-AMDe Bee Product Marketing and Packaging Report, June 2012, William Lord

Annex III. Action Plan for Fertilizer on AGP-AMDe, June 2012, John Mellor

Annex IV. Critical Issues/Questions for Fertilizer Policy, June 2012, John Mellor

Annex V. Fertilizer Use, Policies, Strategies and the Latest Developments in the Fertilizer System, June2012, Teshome Lakew

ANNEX I. ETHIOPIAN COMMODITIES EXCHANGE COFEE STANDARDS REVISION REPORT, JUNE 2012, K.K. O'KEEFE

By: K.C. O'Keefe, Lead Consultant for the Coffee Quality Institute

Coffee Corps Assistant: Aaron De Lazzer

Sponsored By: ACDI/VOCA - CQI (USAID - AGP 1017)

Field Work: May 29-June 8th, 2012

Submitted: June 20th, 2012

Executive Summary:

The current ECX coffee grading standards have been in effect for three harvest seasons and are ready to be evaluated for 1) potential improvements and 2) increased efficiency. The standards were fixed in 2009, with the adoption and integration of the Specialty Coffee Association of America (SCAA) and the Coffee Quality Institute's Q System Protocols. The Coffee Quality Institute has been contracted through USAID's – (implemented by ACDI/VOCA) AGP project to assist the ECX in a three-year standards review. The general premise is that while the current standards are functioning well, the protocol could still use improvement in efficiency of coffee evaluations.

A field study revealed the need for the ECX to implement ongoing measurable methods of evaluating the grading accuracy of the ECX grading system, and the individuals responsible for grading the coffees. Correspondingly, the field study revealed an unhealthy dependence on CQI's "Q program" as the only metric for calibration and oversight of ECX coffee graders. Lastly, this assignment revealed a legacy of coffee grading decisions being influenced on information other than isolated blind assessments.

The primary recommendations as a result of this field study are the following steps in order. First, demand and continuously test for meticulous grading protocol discipline as required by Q and SCAA Protocols. This scientific process was adopted in 2009. Execution shall include the assurance of isolated blind physical and sensorial grading of the coffees. Second, ensure the integrity of accurate quality control assessments by methodically evaluating the individuals and collective labs' calibration (grading results) using the current protocols, formats and grading categories. This calibration testing should be complete before the beginning of the 2012/13 harvests. Third, during the 2012/13 harvest, methodically Beta Test recommended changes to the formats, protocols and grading categories, with the goal of implementation for the 2013/14 harvest.

Once Lab execution is at acceptable levels, valid evaluations of the current system and beta testing can occur. To make system changes prior to sound execution would require confidence in individual opinions, rather than educated recommendations based on sound support data.

A Basic Review of Coffee Grading Analytics and Concepts:

Coffee Cupping is a relatively new sensorial science. The Specialty Coffee Association of America's protocol and format were formalized in 2003, making the current Specialty protocols less than ten years old. In light of this, it is important to be cautious in coming to conclusions regarding this new sensorial science. Grading Analytics is in its infancy and must be tailored to each specific coffee grading reality.

Coffee Grading Analytics is the study of the process and results of the systems and individuals that judge coffee quality. There are two distinct areas of focus in Coffee Grading Analytics: System Analytics and Grader Analytics. The primary aim of these analyses is to measure the statistical validity of the grading results.

Coffee Grading **System Analytics** is the study of the validity of the grading **standards and rules** which includes its green coffee evaluation protocol and formats, sensorial evaluation protocol and formats, the system's ability to produce repeatable results, and systems calibration with a defined Market (calibration point).

Coffee **Grader Analytics** is the study of the validity of **individual** coffee grader's grading results when using a pre-established grading protocol (such as the Q System). Grader Analytics focuses on three core metrics: Ability, Repeatability and Calibration.

The ECX currently needs to validate both 1) its system of grading and 2) the graders' ability to execute that system.

Calibrated Coffee Laboratory:

A Calibrated Laboratory is one that correctly follows defined protocols (scientific process) with 100% discipline and maintains over 95% repeated grading accuracy when directly compared to the calibration point (central lab of senior graders).

Calibrated Sample Roaster:

A Calibrated Sample Roaster is one who correctly follows defined roasting protocols (scientific process) with 100% discipline and maintains over 95% repeated roast accuracy (Color & Profile Development). Sample roasting affects every sensorial grade, thus the percent of variation in roasting directly injects sensorial grading variation.

Calibrated Coffee Grader:

A Calibrated Grader is one who correctly follows defined protocols with 100% discipline, maintains over 98% repeated accuracy in Green Grading and over 90% repeated accuracy in sensorial analysis.

- Cupper Ability (physiological & mental) is tested through Sensorial Skills Test, Triangulation Test, Olfactory Exams, and evaluation of the individual's understanding and execution of defined protocols.
- Cupper Repeatability measures the graders discipline to follow protocols, concentration abilities, and the measurable ability to repeat blind grading of the same coffee and achieve a repeated accuracy (+/-1.5 sensory score of 100).
- Cupper Calibration is the repeated ability to match the scores/grades of a given group of graders.

Sensorial Accuracy Defined:

Sensorial Accuracy is defined as the repeated ability of a grader to equally grade a coffee in comparison to the pre-defined repeatable calibration group (Senior Graders) using a pre-established protocol.

Graduated Sensorial Accuracy Defined:

Acceptable Sensorial Precision (exact cupping scores) has graduated relevance in coffees sensorial analysis. For commercial scoring coffees (70-80 points) precision is not required to be "accurate" or "calibrated". The range of calibration can be as high as +/- 5 points. For under-commercial scoring coffees (<70 points) cupping precision becomes less relevant than the physical analysis, and acceptable

cupping score calibration can be as high as +/- 10 points. Thus sensorial grading "accuracy" is easier to obtain and less important the lower the grade.

On the inverse, sensorial grading precision is more important and demands greater precision the higher the grade (cupping score) to be considered accurate. Sensorial Accuracy of Specialty grades (above 80 points) demand +/-2 point calibration range.

Isolation De-Calibration:

Isolation De-Calibration is defined as grader (cupper) de-calibration stimulated by continuous cupping in the same group of cuppers and/or restricted cupping of similar coffees types (from a limited geographic production area or processing type).

Protocols and Procedures Audit Observations

This grading protocols and procedure audit was executed over a five-day period in the Addis Ababa Joseph Lab on June 1-6th, 2012. The following are the audit observation by grading step.

1. Green Preparations: Grade A+ 95%
    a. Hulling Equipment may need to be calibrated. There was no onsite knowledge of the last calibrations of the hulling equipment. Some parchment remained in the green coffee sample after hulling.
    b. Green grading is impeccably and efficiently executed.

2. Roasting: Grade C- 70%
    a. * Roasting affects 100% of the cupping results, thus variances at this stage compound grading variations on the cupping table. The SCAA protocol adopted in 2009 demands an 8-12 minute roast & 58-63 Agtron.
    b. Roasting Equipment needs to be calibrated. Each drum had significant differences in roast times.
    c. Roast logs are not being used.
    d. Timers are not being used to record and regulate roast speed.
    e. There were no master samples being compared for color, nor Agtron tile kits.

3. Table Preparations: Grade C+ 78%
    a. Grinding at times was executed without a grind purge.
    b. The order of pouring the table was sporadic in every cupping session.
    c. The temperature of the water was not measured and varied significantly between each session, thus directly introducing a variance in extraction.
    d. * Basic Hygiene is not being followed – no sterilization of cups; general hygiene failure between cleaning the floor and subsequently coffee preparations with no hand washing between. Hand washing soap was not available in the lab, or in the bathrooms. This breakdown in Hygiene poses a health risk to the coffee graders.

4. Cupping Procedures: Grade D 65%
    a. * There was a general lack of rigor and discipline to the explicit sensory science rules of cupping.
    b. There was a lack of a named Leader who was professional responsibility for each session.
    c. Timers were not used in any of the cuppings.
    d. The cupping spoons size was too large to correctly dip into the cups.
    e. The breaking of the crust was randomly executed. The number of stirs and form of stirs varies between graders and even by the same grader. This directly introduced extraction variations in the cuppings.
    f. It is recommended that the graders use Spittoons with Handles and Clipboards.

g. It is recommended that grading be executed on a carbon-copied sheet in which the original will be turned in to the master file by each grader. This will eliminate opportunity for tampering with results.
h. Aprons were not clean in smell. Aprons must be washed minimum weekly and be free from odor contamination.
i. During the cuppings there was random deep dipping that stimulates over extraction and lack of uniformity between cups.
j. There was neither timing discipline nor discipline to the number of passes of the cupping table.
k. Each day there was intolerable fecal smell that periodically entered the Lab and made sensorial grading impossible.
l. Cell phones were in use and side conversations occurred during the cuppings. Not only is this a distraction issue, but also the use of cell phones in the lab is a potential corruption point. Cell phones should be prohibited during workday by retaining them in the lab office. The lab should have one phone for emergency contact during the workday.

5. Blind Cupping: Grade F <50%
    a. The opportunity for influence from pre-existing knowledge is quite high, to the point that it most certain that cuppers are not making cup scores based purely on the cuppings. The lack of blind cupping calls into question the integrity of the grading results.
    b. Roasters, Cuppers and Coordinators currently have knowledge of the origin prior to cupping.
    c. Cuppers have knowledge of the green grading scores prior to cupping.
    d. Cuppers have physical sight of green coffee and roasted whole bean during the cupping.
    e. There is the opportunity for heavy influence from the coordinator in determining the final grade, breaking the 2009 adopted Q Protocol of required average of 3 graders.
    f. Any information regarding the coffee during grading provides opportunity for corruption.

Revision Methodology: Steps for ECX Standard and Protocol Revisions

1. Potential revisions shall be discussed internally with ECX staff (and external consultants such as CQI), and formulated into potential revisions to be evaluated.

2. The Proposed Standard and Technical Procedure shall be Beta Tested against the current standard.
    a. Valid Beta Tests shall:
        i. Use at least 5 Q Licensed ECX graders
        ii. Use coffees from the entire range of Ethiopian origins and grades, which have been graded using the current method (method to be changed).
        iii. Attempt to limit the variables in the grading procedure to the proposed change.
        iv. When possible attempt to complete a minimum of 10 beta tests of the proposed change(s).
        v. Compile blind grading results into a database, which allows for statistical analysis. Beta Test's statistical results will be the primary support for revisions.

3. Related Trade Data shall be analyzed. These analyses have two primary focal points: Price and Volume.

4. Representative Exporters and Suppliers shall be consulted regarding the potential revisions. When possible exporter graders will be invited to participate in a grading exercise to clarify the potential grading procedural changes and give opportunity for comment.

5. ECX Quality Control Manager's recommendation for revisions shall be formalized. At times this may come from/with an external consultant's recommendation(s).

6. Proposal for revisions with support data shall be given to ECX senior management team for review and approval.

7. Proposal for revisions shall be presented to the Market, ECX Board and ECX Authority (when applicable).

8. Implementation of changes shall occur annually prior to the new harvest, in September or October of each year. This "Once a Year" standard revisions will provide grading and corresponding trade stability for the internal industry of Ethiopia.

Beta Testing Results: June 2012

The beta testing was completed with 7 ECX Q Graders and 2 CQI Foreign Q Graders. 18 washed coffees grades 1-5 were analyzed in 4 cuppings, with 7 coffees repeated without defects in the roasted sample, bringing the total washed grades in the database to 386. 20 unwashed samples grades 1-7 were analyzed in 4 cuppings, with 4 coffees repeated without defects in the roasted sample, bringing the total unwashed grades in the database to 384.

There were four proposals beta tested during the June 2012 field study:

1. Cup Grading Without Defects in Roasted Sample (As Is vs. As Potential)
2. Quantitative vs. Qualitative Green Coffee Grading (Combined score vs. Dual Score).
3. Elimination of Dual Cupping for Grades 1-3
4. Opportunities for Grade and/or Class (origin) Consolidation.

Beta Test #1: "As Is" vs. "As Potential" Cupping

Proposal Explanation: Currently sensorial preliminary assessment begins with roasting the raw green sample with the defective beans as it was received. This is an "As Is" sample roasting. The physical defects, which are easily identifiable and removable by hand or sorting equipment, negatively affect the sensorial results. If these defects are removed prior to roasting the corresponding cup quality should be "cleaner", thus potentially improving the sensorial results. Coffee exporters commonly practice this "Potential" sample roasting alongside a physical analysis.

Potential Benefit: Coffees cupped without the physical defects in the roasted sample will better reflect the coffee's export "potential" in the sensorial analysis. This could raise the grades of potential coffees and enhance the potential economic reward to suppliers for exceptional cup quality.

Reference: Ethiopian Exporters cup the coffees this way upon receiving the lots from the Exchange; and correspondingly the CLU cups the coffees as prepared for export. It is also common practice amongst worldwide exporters to cup coffees with the "potential" method.

Rational/Logic: Coffees are graded for physical defects in the "Raw" Evaluation. Applying "As Potential" sensorial protocol eliminates double punishment of samples that are already punished (limited) by their physical grade.

Opposing Arguments: This is how the coffee arrives to the ECX. Exporters may not remove all the defects prior to exporting. The current "As Is" protocol is the historical default in ECX, as well as the Prior Auction system. This change would favor suppliers and potentially take profit-making opportunities away from exporters.

Beta Testing Results: The results of the beta testing were inconclusive. The data showed that there was both a positive and negative impact of the grading change.

Recommendation: We recommend that once lab protocols are improved to acceptable levels that the ECX continue the beta testing with a larger sample test pool and blind cupping comparisons.

Beta Test #2: Combined vs. Dual Grade of Quantitative & Qualitative Score

Proposal Explanation: Currently the grading procedure combines the physical and sensorial grades into one combined score. This combined score makes it impossible to relate a "Grade" specifically to a quantity of physical defects (Quantitative), or specifically to a cup quality (Quantitative). The proposal is to separate the grading into two evaluations, physical and sensorial, with the final coffee grade relating to the lower of the two grading results. Changing the physical evaluation into minimal requirements by grade, rather than using the physical evaluation as a 40% component of the total grade, would accomplish this. Correspondingly the sensorial grade would have minimal scores per grade. For example:

Defects Grade			
Max Grade	**Primary (count)**	**Max Grade**	**Secondary (weight)**
G1 – Specialty	0-4	G1 - Specialty	<8 %
G2 – Commercial	5-10	G2 - Commercial	<12%
G3 - Low Comm.	10-15	G3 - Low Comm.	<14%
UG/LW	> 15	UG/LW	>14%

Sensorial Grade
1 Specialty 80-100
2 Commercial 70-79
3 Low Com. 60-69
UG/LW <60

Potential Benefit: This explicit quantitative physical requirement and qualitative sensorial requirement by grade will allow exchange buyers a clearer understanding of the conditions of the grade they are buying, and thus maximize their competitiveness for purchasing those desired coffees. Secondarily the grading procedure will increase in efficiency and objectivity.

Reference: This change follows international standards procedures such as the SCAA/Q protocols adopted in 2009, and the ICE standards. For reference the ICE standards can be found at:

https://www.theice.com/publicdocs/rulebooks/futures_us/8_Coffee.pdf

Rational/Logic:

1. This provides objective measurements for exporters who need to calculate weight loss due to defects into their purchasing price.
2. Cupping scores are consistently graded out of 100. Changing to a 100 point scoring system will follow SCAA cupping protocol, to which all Q Graders are trained and calibrated.
3. A sensorial categorical 10 Point system of 6-10 follows the SCAA cupping formats and grading system. Using the same values for all categories will increase grader calibration.

Opposing Arguments:

1. Historical: Ethiopian graders have historically used a 40% Raw/60% Sensorial combined scoring system since the days of the Auction. This grading philosophy is very ingrained in the minds of national cuppers and influential leaders.
2. ECX Grader's are concerned that the lower of the two grades could lower the score of the coffees thus punishing small holders for physically unclean coffee.
3. Exporters privately calculate weight loss, and those who are good at this skill currently have a technical competitive advantage over others. Clearly executing and clearly communicating weight loss to Exchange buyers diminishes this competitive advantage between exporters.

Exporter Responses: In one interview there was a positive response to further clarification of physical conditions of the coffees. It was suggested that this could be a favorable explicit communication, which would encourage suppliers to "pre-clean" their coffees prior to delivery to the ECX; and potentially improve the overall quality of coffees delivered to the ECX.

Beta Testing Results: The blind cupping results using the current grading form and system were repeated with a modified version of the form. The same categories and divisions were used, applying a grade for each raw analysis category. Bellow is the current washed form's Raw Value used in for "Blind Cupping" analysis, and comparative "New Form". Note the grades added for the raw values, rather than points.

Current System

RAW VALUE 40%									
Defects		**(20%)**		**Shape & Make**	**(10%)**	**Color**	**(5%)**	**Odor**	**(5%)**
Primary (count) (10%)	**Pts**	**Secondary (weight) (10%)**	**Pts**	**Quality**	**Pts**	**Quality**	**Pts**	**Quality**	**Pts**
0	10	<5%	10	V. good	10	Bluish	5	Clean	5
1-4	8	<8%	8	Good	8	Grayish	4	F. Clean	4
5-6	6	<10%	6	F. good	6	Greenish	3	Trace	3
7-10	4	<12%	4	Average	4	Coated	2	Light	2
11-15	2	<14%	2	Fair	2	Faded	1	Moderate	1
>15	1	>14%	1	Small	1	White	0	Strong	0

Beta Tested Revision

RAW VALUE									
Defects				Shape & Make		Color		Odor	
Primary (count)	Max Grade	Secondary (weight)	Max Grade	Quality	Max Grade	Quality	Max Grade	Quality	Max Grade
0	G1	<5 %	G1	V. good	G1	Bluish	G1	Clean	G1
1-4	G 1	<8%	G1	Good	G1	Grayish	G1	F. Clean	G1
5-6	G2	<10%	G2	F. good	G2	Greenish	G2	Trace	G2
7-10	G3	<12%	G3	Average	G3	Coated	G3	Light	G3
11-15	G4	<14%	G4	Fair	G4	Faded	G4	Moderate	G4
>15	G5	>14%	G5	Small	G5	White	G5	Strong	G5

Bellow is the current washed form's Cup Value used in for "Blind Cupping" analysis, and comparative "New Form". Note that the point system was modified to 100 points (as SCAA scale) and each category was given a 25-point value equivalent to the SCAA 6-10 scale.

Current System

CUP VALUE 60%							
Cup Cleanness (15%)		Acidity (15%)		Body (15%)		Flavour (15%)	
Quality	Pts	Intensity	Pts	Quality	Pts	Quality	Pts
Clean	15	Pointed	15	Full		Good	15
F. clean	12	M.pointed	12	M. full	12	F. good	12
1 CD	9	Medium	9	Medium	9	Average	9
2 CD	6	Light	6	Light	6	Fair	6
3 CD	3	Lacking	3	Thin	3	Commonish	3
>3 CD	0	N.D	0	N.D	0	N.D	0

Beta Tested Revision

CUP VALUE 100%							
Cup Cleanness (25%)		Acidity (25%)		Body (25%)		Flavour (25%)	
Quality	Pts	Intensity	Pts	Quality	Pts	Quality	Pts
Clean	25	Pointed	25	Full	25	Good	25
F. clean	21	M.pointed	21	M. full	21	F. good	21
1 CD	19	Medium	19	Medium	19	Average	19
2 CD	17	Light	17	Light	17	Fair	17
3 CD	15	Lacking	15	Thin	15	Commonish	15
>3 CD	0	N.D	0	N.D	0	N.D	0

Out of 18 washed samples beta tested 15 samples had a higher grade, two had a lower grade and one obtained the same grade. The average grade increase using the new washed form was 0.8, almost 1 full grade.

Of the 20 unwashed samples graded with the new form, 19 samples had a higher grade and only one obtained the same grade. The average grade increase using the new unwashed from was 1.1.

Recommendation: We strongly recommend that the next version of ECX protocols separate the Quantitative and Qualitative categories. While combined scoring into one number is appealing mathematically, it is not logical for coffee trade analysis. The current unclear communication of distinct segregated technical data limits the market's ability to fully confide in the ECX grading, and correspondingly economically compete for the coffees.

We recommend that once lab execution is up to acceptable levels that beta testing begins with the attached recommended grading forms.

Beta Test #3: Elimination of Double cupping for potential specialty grades.

Proposal Explanation: Currently any coffees which grade at 3 or above in the preliminary sensorial assessment are re-graded using the SCAA cupping format and protocol, thus requiring a second cupping for 10-30% of the coffees. The proposal eliminates the second cupping and increases grading efficiency through one of two options: To directly execute a SCAA cupping if the coffee surpasses the current physical evaluation of grade 2; Or to exclusively execute the preliminary cupping format for all the cuppings.

Potential Benefit: This elimination of double cupping could reduce corresponding grading times by 30%, or 1 hour per sample.

Rational/Logic: Trained graders should be able to accurately categorize coffees into grades in one cupping. In the current sensorial protocol the coffees cupped immediately after roasting. This does not allow sufficient time for precise flavors and aroma's to settle. Thus the meticulous 11-category SCAA form should not be used. Cupping should focus on the most confident sensorial categories that can be evaluated immediately after roast; those are limited to Taste and Tactile sensations. If the SCAA form will still be used, than coffees should rest for 8-24 hours prior to cupping, as demanded in the SCAA protocol.

Beta Testing Results: There was insufficient time for testing this proposed change.

Recommendations:

1. Beta test the two options to be able to choose which one is more practical in application.
2. Coffees identified as UG in physical examination should be removed from cupping and graded only on physical grades.

Beta Test #4: Opportunities for Grade and/or Class (origin) consolidation.

Proposal Explanation: The primary question(s) in this arena is if there are sufficient identifiable sensorial or physical differences between origins and/or grades to warrant a specific origin classification or grade. Currently there are 147 specialty and commercial contracts for washed coffees and 198 specialty and commercial contracts for unwashed coffees. Beyond this segregation there are 20 contracts for Local Washed coffees and 56 contracts for Local Unwashed coffee.

With a grand total of 421 segregated contracts this is certainly the most segregated coffee classification system in the world. Are these 421 contract segregations valid and/or necessary? Are the 15 grades and 33 classes (origins) identifiable in blind cupping and physical sorting? If they are not identifiable by trained graders then potentially they could be consolidated into larger baskets of the exchange. A parallel set of questions needs to be asked by ECX trading operations to analyze if the corresponding market price differentiation and/or volumes warrants sub-categorization. At what point is the ECX a lot specific auction, rather than an exchange?

Potential Benefit: The greatest advantage of grade and/or classification consolidation is in improved warehouse and sales efficiency of the exchange. Secondarily this will enhance the ability to keep the coffees supplier information anonymous, further assuring the integrity of the exchange market. Lastly this will more accurately reflect the export evaluations and international sales of Ethiopian coffees.

Four Consolidation Questions: Four basic consolidation questions were identified for ECX evaluation:

1. Do Origins (Classes) ***currently*** have discernible cup characteristics in blind cupping evaluation to merit separate exchange contracts purely on cup distinction?
2. Do Grades have the repeatable re-grading accuracy to merit separate exchange contract grades, and prove ***current*** ECX grading validity?
3. Is there sufficient volume of the ***current*** exchange contracts to ensure lot identity confidentiality & logistical efficiency? What is the minimal volume needed in each contract to prevent the exchange from becoming a Lot Specific Auction?
4. Is there sufficient price distinction between ***current*** grades and origins to merit separate exchange contracts?

Contract Origins (Classes):

Do Origins (Classes) ***currently*** have discernible cup characteristics in a blind cupping evaluation to merit separate exchange contracts purely on cup distinction?

- **Presupposition:** "Origin Cup Character" should be detectable by a trained cupper more than 75% of the time to be a valid "Origin Cup Character".

- **Beta Testing results**: ECX cuppers were asked to identify the origin of each the coffees cupped blind during the 5 days of Beta Testing. For Washed Coffees there was a 44% Average Blind Recognition of the origins. Washed Yirgacheffee was the most recognizable origin at 53% of the time. Washed Yirgacheffee and Sidamo washed coffees seemed interchangeably recognizable with a combined 58% identification. In the unwashed cuppings the average blind recognition was 28%. It should be noted that the unwashed testing did not include samples from Harrar.

Washed ID By Origin	
Original Origin	Origin Accuracy
Bong Total	35%
Limu Total	32%

Sidama Total	33%
Abaya	50%
Dilla	50%
Gedeb	50%
Wengo	50%
Y/Cheffe	67%
Yirg. Total	53%
Total	44%

- **Conclusion:** Besides Yirgacheffee and Sidamo, *Current* origin distinction due to presumed sensorial distinction within *current* ECX traded lots could not be supported by the *current* data.

- **Recommendation:** Besides Yirgacheffee & Sidamo, ECX should not *currently* use sensorial distinction as a valid argument for ECX contract segregation. Ongoing testing should continue to monitor for potential "origin flavor " identification and development.

Caution: There could be several reasons for the current indistinguishable nature of the samples. Current poor processing in the majority of Ethiopia could be preventing "Origin Specific Character" to be revealed. Prior to delivery of coffees to the ECX the "Origin Specific" coffees could be blended, preventing the opportunity to detect unique cup values.

It is logical to assume that Ethiopia certainly has unique varietals which are undiscovered and will produce unique "Origin Specific Character" when the producer groups develop sound post harvest practices. Ethiopia is the only country in the world with this theoretical cup distinction possibility.

Cup distinction is not the only argument for origin-segregated contracts. Warehouse locations, potential future taste distinction, and marketability are all additional arguments for retaining or developing origin distinctions.

Contract Grades:

Do Grades have the repeatable re-grading accuracy to merit separate exchange contract grades, and prove *current* ECX grading validity?

- **Presupposition:** A Specific Grade using the same grading system should be repeatable more than 90% of the time to be a valid grade.

- **Beta Testing Results:** The 18 washed coffees and 20 unwashed coffees were graded using the same procedure as executed during the original preliminary assessment. The results of the re-grading were then compared to the original grades and analyzed for grading accuracy and grading variance. The primary variability between the two gradings was the controlled 100% blind scenario of the second grading. The following were the results:

- Washed Coffees
  - G1 = 8% Accuracy; 1.8 grade variance
  - G2 = 21% Accuracy; 1.3 grade variance
  - G3 = 18% Accuracy, 0.7 grade variance
  - G4 = 32% Accuracy, 1.2 grade variance
  - G5 = 17% Accuracy, 1 grade variance
  - Av = 22% Accuracy, 1.01 grade var.

- Un-Washed Coffees
  - Average = 26% Accuracy; 1.0 Var.

- **Conclusions:** The grading inaccuracy and variances are obviously unacceptable and in need of immediate correction through calibration testing. It is possible cuppers in the first grading were influenced by knowledge of the origin, physical grade, or even sight of whole bean coffee in the original cupping, thus skewing the original results. Secondly it is probable that roast and extraction protocols were not precisely and identically executed in the two cuppings, thus compounding unacceptable variances between the grading. It is possible that grades are potentially too specific (tight scoring system) to be repeatable with at a high rate. Although unlikely, it is possible that samples were mislabeled in the regional labs prior to shipment to the Addis Ababa lab.

- **Caution:** It is natural to have some variance in sensorial scoring of a coffee by the same trained cupper, on the same day, with the same roast sample. In that scenario it is acceptable to have a +/- 1.5 point variation using the 100-point SCAA scoring system. This acceptable variation can double (+/- 3 points) when grading the same coffee in a distinct roast or following day (s). Using a team of at least 3 graders (as in the Q Protocol) and averaging their results reduces this "cupper variance".

  The variance in sensorial results will compound if/when the preparation or cupping protocols are not meticulously followed. Sample roasting and extraction protocols are the most sensitive variables in compounding cupper variance. If sample roasting and extraction protocols are not followed (as surely was the case in our beta test) the corresponding cuppers' grades could be rendered invalid.

- **Recommendations:** The rules of "Blind Evaluations" should be immediately re-installed and rigorously followed with the utmost discipline. There should be zero lot information transfer to graders when green grading or sensorial grading. We recommend a coding system that separately codes the green and roast samples to make it impossible for the graders to know the identity of the coffees. Correspondingly green grading and sensorial scores shall be entered directly into the database and only electronically decoded and assigned the final coffee grade. This "Blind Assessment" protocol and procedure will ensure accuracy in grading and prevent potential corruption of the process.

  Secondly, we recommend that each grader be required to turn in their cupping forms and to be equally weighed in the scoring of the coffee using an average of the three graders without the opportunity for grading influence by the lab coordinator. If the graders vary in their assessments by an unacceptable variance, (i.e. > 5 points) they should be required to re-grade the sample. This follows Q Grading Protocols and Procedures.

  Lastly, the validity of the current system should be reevaluated using the above-prescribed "Blind Evaluations" in order to correctly evaluate the repeatability rate of the current system. If further Beta Tests reveal a lack of repeatability, the current grading system grades could be beta tested for consolidation (widening of the grades), with the end goal of providing a higher rate of repeatability and value to the market.
  - Example of potential washed grading consolidation:

- Specialty = <6 Primary Def. & <10% Sec. Def. & 80+ Cup (Current 1-2)
- Commercial = 7-10 Prim. Def. & <12% Sec. Def. & 70-79 Cup (Current 3-4)
- Low Com. = 11-15 Prim. Def. & <14% Sec. Def. & 60-69 Cup (Current 5-8)
- UG/LW = >15 Primary Def. & >14% Sec. Def. & <60 Cup (Current 9-UG/LW)

Contract Volumes:

Is there sufficient volumes of the *current* exchange contracts to ensure lot identity confidentiality & logistical efficiency? What is the minimal volume needed in each contract to prevent the exchange from becoming a Lot Specific Auction?

Washed Origins by % of Total			
Yirgacheffee & Sidama	Yirg Wash 14.80%	Sid Wash 48.80%	
	Limu A	Limu B	

- **Presupposition:** For the exchange to function properly there must be a minimum amount of trading volume by contract.

- **Data Analysis:** A peripheral analysis of the trading volumes demonstrates a significant variance in the volumes by Grades and Origins. The following are a few samples of comparative tables.

Washed Grades by % of Total Volume			
Specialty	Q 1 0.70%	Q 2 15%	
Commercial	G 3 57.27%	G 4 20.74%	G 5 3.58%
Low Commercial	G 6 1.15%	G 7 0.30%	G 8 0.30%
Under Grade	G 9 0.1%	UG 0.85%	

Unwashed Coffee Origin	Grand Total	Market Share by %
Bench-Maji	9.48	0.01%
Forest	12,894.78	13.87%
Gelana Abaya	17.85	0.02%
Harar	6,011.02	6.47%
Jimma	35,152.37	37.81%
Keffa	948.81	1.02%
Kellem-Wollega	91.80	0.10%
Kochere	56.97	0.06%
Lekempti	29,656.88	31.90%
Sidama	5,530.32	5.95%
Wenago	25.50	0.03%
Yirgachefe	2,570.33	2.76%
Grand Total	92,966.09	100.00%
Market Share by %	100.00%	

Limu	23%	2.40%	
	Kaffa	Tepi	Bebeka
Forest	0.29%	0.30%	1.13%

Unwashed Coffee Origin	Unwashed Coffee Grades by % of Total Volume									
	1	2	3	4	5	6	7	8	9	UG
Market Share by %	0.19%	1.38%	1.99%	7.00%	15.18%	34.90%	23.40%	7.86%	5.14%	2.97%

- **Conclusion:** Many contracts have are so low in volume that in reality they host lot specific trades on the exchange floor. This reality appeared to be openly recognized as such by exchange staff and exporters.

- **Recommendation:** The ECX needs to decide if it wants to continue the facilitation of lot specific trades, or if it desires to create minimum volumes for segregated contracts. If a true exchange model is the goal then we certainly recommend a reduction of quantity of contracts. A reduction of grades would be the logical place to start, and the consolidation of least resistance by the Ethiopian trading community.

Contract Prices:

Is there sufficient price distinction between *current* grades and origins to merit separate exchange contracts?

- **Presupposition:** Higher grades and distinct origins should command a higher price in the market, and thus demand a separate contract in the Exchange system.

- **Data Analysis:** For valid trading price comparisons it was necessary to limit the data to trades that occurred on the same day. This proved to be difficult since many (if not most) of the contracts trade at such low volume they do not have comparisons on the same day. The following are a few samples of comparative tables that did have same day trading data.

Washed Price Comparisons	
Av. Price Difference G1 vs. G2 1.34%	
Av. Price Difference G3 vs G4 2.30%	Av. Price Difference G4 v G5 2.69%
Av. Price Difference G6 vs G7 2.90%	

Washed Price Comparisons	
Yirg vs. Sid Av Price Difference 1.40%	Frequency 66%
Limu A vs B Av. Price Difference 0.50%	Frequency 65%

Unwashed Grade Price Differences on Same Day Trades

Contract	3-4	4-5	5-6	6-7	7-8	8-9	9-UG	Average
UJMA	2.14%	1.13%	1.17%	1.49%	2.06%	2.68%	2.14%	1.83%
UJMB	3.04%	1.44%	1.09%	2.00%	2.24%	0.00%	0.00%	1.96%
ULK	2.75%	2.83%	1.11%	1.35%	2.32%	3.69%	0.00%	2.34%
USDA	4.02%	11.04%	4.81%	3.81%	0.00%	0.00%	0.00%	5.92%
USDC	1.80%	5.13%	0.00%	0.00%	0.00%	0.00%	0.00%	3.47%
UHRA	0.76%	0.99%	1.36%	1.92%	0.00%	0.00%	0.00%	1.26%
UHRB	1.00%	0.72%	0.97%	1.30%	4.22%	0.00%	0.00%	1.64%
UHRC	0.61%	0.76%	1.33%	1.20%	1.01%	0.00%	0.00%	0.98%
UHRD	0.00%	2.19%	1.82%	4.21%	4.00%	0.00%	0.00%	3.06%
UYCB	0.00%	0.00%	3.43%	5.48%	0.00%	0.00%	0.00%	4.46%
UFRA	0.00%	1.00%	1.05%	2.13%	2.35%	1.91%	1.25%	1.62%

Washed Price Differences of same day trading

	3-4	4-5	5-6	6-7	Average
WSDA	2.81%	2.75%	-	-	2.78%
WSDB	3.12%	2.14%	8.59%	2.92%	4.19%
WYCA	2.28%	-	-	-	2.28%
WYCB	2.80%	3.56%	4.36%	-	3.57%
WLMA	1.88%	2.07%	4.00%	-	2.65%
WLMB	1.66%	2.94%	-	-	2.30%

- **Conclusion:** Both the percent of average price difference and the frequency of that difference should be considered when evaluating price as a potential consolidation indicator. At some grades and origins there certainly is very little, if any, price difference. This data justifiably questions the merit of separate contracts of those grades or origin within the ECX system.

- **Recommendation:** We recommend a two or three year study be made in order to increase the validity of the data. Secondly we recommend that those grades with minimal price difference be highlighted for potential consolidation.

Additional recommendations for potential format and protocol changes:

1. Separate the Raw Evaluation and Sensorial Evaluation into two separate coded gradings that are isolated from each other. This change will further ensure blind grading and eliminate sensorial distortion due to influence by the raw grading.

2. Remove Shape & Make, Color & Odor in the raw evaluation. These categories are not graded qualitatively in any grading system, and do not make up a total grade. In the ICE system, they are simply Acceptable/Unacceptable observations. In the SCAA system they are simply observed but do not contribute to the coffees grade.

3. Chang Flavor to Sweetness on the preliminary assessment cupping forms. For efficiency preliminary assessment samples are cupped within hours after roasting. This short time of sample rest (degassing) does not allow enough time for aroma and flavor stabilization and subsequent precise aroma and flavor analysis. Thus we recommend that Flavor be changed to Sweetness, which is a much more stable component and primary contributor to coffee flavor. Sweetness is

easily evaluated by perceived intensity and does not depend as heavily on the rest period of the coffee.

4. Establish a variation tolerance for scores between cuppers. If their scores are outside of the range the sample shall b re-cupped. For example if one cupper scores 86, another 81 and the third 76, the coffee would have an average score of 80.7 or Grade 2. Yet the range of scores has a 10 point differentiation, from Grade 1 – 3, which would make the corresponding results suspicious. In this case we recommend the coffees be re-cupped and the second scoring set be applied. If this lack of calibration continually occurs than those graders should be tested.

5. Establish an electronic coding system that will create an electronic barrier to lot identification by lab staff. To accomplish this, a randomly generated electronic code would be created for the Raw Sample. Parallel, another randomly generated electronic code would be created for the Roast Sample. Special care must be taken at this point to prevent information transfer to the graders via human intervention during the grading process. Electronic coding and grading should be required to occur on the same day. If delays occur coffees should be recoded daily. Physical separation between graders and the person in charge of the initial sample data input, and elimination of cell phones, must be demanded in order to ensure integrity.

Raw samples would then be graded with only the knowledge of the raw sample code. Parallel the roast samples would be roasted and passed along to the graders for evaluation with no connection to the raw sample grading nor identity/origin of the sample. The raw and sensorial grading would then be executed separately. Sensorial Grades are turned in and complied electronically, averaging the 3 graders sensorial grade. If the sensorial grades are outside the variance tolerance (+/- 5 points) than the graders are asked to re-grade the coffees.

At the point of the grading entry into the database there is no reason for the system to indicate the origin. The database will then electronically match the grading and produces the Lot Grade and Origin Classification without human intervention. This will remove the possibility of corruption and/or information distortion of the raw or sensorial grading processes.

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ANNEX II. AGP-AMDE BEE PRODUCT MARKETING AND PACKAGING REPORT, WILLIAM LORD, JUNE 2012

Executive Summary

The quality of raw bulk honey seen by the consultant in central and northern Ethiopia is excellent and is being separated by floral source. Prices for bulk honey are artificially high relative to world prices due to supply shortages which can be attributed to the exploitative management of the honey bee resource in Ethiopia and good demand for the limited supply of raw honey at the farm gate. AGP-AMDe's Ethiopian honey specialist and two ACDI/VOCA beekeeping and honey marketing consultants have recommended a model whereby four Ethiopian processors will create value chain networks linking processors to trainers and beekeepers via training and provision of hives, ensuring linkages of producers to processors to increase yields, raise producer incomes, and solve supply side issues.

There will be strong demand for Ethiopian honey on the world market due to a world-wide shortage of honey in general and in particular a shortage of honey that is not contaminated with chemicals, drugs, C4 sugars, and GMO pollen. Comparative advantages of Ethiopian honey include production in diverse pristine environments using healthy bees that need no drugs or chemicals, multiple high quality floral sources, low technology on-farm processing that does not harm honey with heat, the potential for widespread organic certification, and the potential for competitive prices as production levels increase due to introduction of sustainable management practices.

The four processors selected for intervention by AGP-AMDe would benefit from planned supply-side linkages to beekeepers proposed by project staff. Beekeeping management improvements should result in higher honey yields that would ease the pressure on bulk honey prices. There is a severe shortage of bulk honey containers in both the 20 liter and 200 liter size, potentially affecting honey quality and the ability of producers and processors to efficiently handle and/or export honey. The retail market for honey in Ethiopia is being poorly served due to shortages of good quality packaging materials (jars and boxes) and unskilled processing, resulting in unattractive honey. There is poor product placement and management in retail outlets, and a poor understanding or inability to respond to demand for appropriate sizes and varieties of honey for the consumer market. Opportunities exist for diversification into flavored/fruit/nut honey blends, as well as introduction of beeswax and related hive product-based cosmetics for the local and intra-African market. A strong marketing/branding effort needs to be initiated to emphasize the high quality of Ethiopian honey and the positive social, economic, and environmental impact of honey production to counteract negative perceptions of Ethiopia in the developed world. Suggestions include 'Abyssinian Gold, Ethiopian Honey', 'Ethiopian Gold Honey', or 'Honey from Green Ethiopia.' One possible means of circumventing the container shortage is to export bulk honey to custom co-packers in the U.S. or the EU for fee-for-service processing, packing, labeling, and shipment to food distributors.

Summary of Honey Processing Development Strategy for AGP-AMDe Project

1. Assist the four processors in meeting ISO and HACCP standards for buildings and equipment.

    - Currently, one processor has HACCP and ISO certification; one has ISOQAR certification and needs HACCP certification; and the two female processors have no certification. This is a Y2-Y3 process and should be straightforward if buildings and equipment are upgraded.

2. Train all processors in GHP (good handling, collection of honey and transport), GMP (good manufacturing practices regarding in-plant extraction, handling, homogenization, storage and logistics), traceability, organic certification logistics, sampling protocol for third party laboratory analysis, and basic honey processing.

    - This would be an on-going one-on-one process embedded in the value chain. The two established processors need help fine tuning their processing techniques and may want to learn the Dyce process for creamed honey. This would be a Y2-Y3 program that would require four sets of two days of technical assistance over two years. The two female processors would need regular training Y2-Y4 (six sets of two-day trainings) to use better equipment and to learn processing techniques. These trainings would be reinforced by feedback on the local market and need some time to play out.

3. Assist processors in packing better quality honey for local markets. Help processors learn to work with distributors and stores to optimize product placement and appearance. Set up feedback loops from distributors, stores, and customer base to improve product lines and sales. Work on individual branding, labels, and country of origin branding and labeling. Establish cost basis for bulk and packaged honey.

    - Processors in Ethiopia are apparently acting as their own distributors. As such, they need to learn to display honey more favorably and ask (or pay) for better shelf space. An alternative model is to employ a distributor with field representatives or brokers who monitor shelf space and product quality.

4. Attend trade shows and fairs in EU. US, and Middle East with product samples and promotional material, develop pricing and marketing strategies, and establish relationships with potential buyers.

5. Export in bulk to establish relationships and reputation for reliability and consistent quality. Explore export to custom co-packers in Europe and US to get honey packed and labeled in destination country under ownership of the Ethiopian processor.

    - The consultant has requested costs from a custom co-packer in North Carolina. Initial information from this co-packer is included as Appendix II. Although they process and pack, they only recommend shippers, and the Ethiopian honey owner would need a broker to get the product in stores and receive store feedback.

6. Export in jars to distributors when processing skills and in-country supplies of jars, boxes, labels, and economies of scale allow for profitable operation.

Honey Processor Situation Analysis

Four honey processors have been selected for intervention by the project. Two male-owned units are established and operating out of modern buildings with certified processing lines. One female-owned unit has an uncertified building and basic processing equipment. The second female-owned business has an unimproved building and no processing equipment. All processors are articulate, appear to understand the project model, goals and objectives, understand the importance of diversity in project participants, and are eager to expand their honey processing businesses as opportunity and project assistance allow. All are in need of more raw honey at lower prices from dedicated sources and are therefore interested in linkage with producers through the project beekeeper training and equipment supply model. An analysis of the needs of each processor follows.

Beza Mar Agro Industry, Adama. Haile Giorgis Demissie, General Manager. Beza Mar has an up-to-date processing plant in Adama with ISO 22000 and HACCP certification. Beza Mar has an organic certification program in place with 405 beekeepers (approximate cost is 175 birr per year per grower), but would benefit from cost share to expand the organic program to increase supply of certified organic honey.[1] Over time they have expanded production from 5 tons to 200 tons per year due to improvements in quality and processing. They have exported to the U.K., Germany, and Norway for two years and to Yemen for one year, and they are confident there is a good market for Ethiopian honey. Beza Mar sold 1000 8 oz. jars of honey in the U.S. as a test of the market. When the owner participated in the U.S. Fancy Food Show he was repeatedly asked "who is your distributor," and he did not have an answer. Beza Mar may be overheating and over-filtering honey, possibly harming honey quality, particularly for the export market. The owner of Beza Mar, Haile Demissie, asked for technical assistance with honey processing, production of creamed honey, packaging and labeling, market linkages, and possible cost share for purchasing bulk honey handling equipment. He recognizes a need to improve quality, increase volume, and to lower overhead costs.

Organic Certification

Organic certification originates at the producer level: producers are inspected annually and must keep detailed production records to demonstrate the application of organic practices. The producer usually pays a certification fee upfront, and the fees can be expensive and form a barrier to the certification of producers. According to SOS SAHEL, good record keeping systems are already in place in Ethiopia as a result of training they have provided. Internal Control Systems (ICS), required for group certification, have been set up to meet

Task	Description	Equipment/Supplies/Process	Timeline
Bulk honey processing quality training	Work on eliminating entrained air, possible overheating, excessive filtration. Improve	Polariscope, micron-rated filters, PC-enabled microscope, barrel handling equipment (forklift)	Y2

[1] The high cost of certification can act as a barrier to initial certification and provision of cost share funds can help beekeepers enter a certification program and experience economic benefits for one or two years and then pay fees on their own.

Task	Description	Equipment/Supplies/Process	Timeline
	handling of bulk honey		
Packaged honey processing training	Work on eliminating entrained air, possible overheating, excessive filtration.	High quality 250, 300, 400, or 500 gram glass or PETE jars with secure closures	Y3
Develop market linkages	Attend trade shows and food fairs with product	Promotional materials, sample jars, laboratory analysis of honey	Y2,Y3,Y4,Y5
Dyce process training (creamed honey)	Grind seed stock, Schedule seasonal trial runs and scale-up production.	Acquire grinders, chilling tank, and refrigeration equipment, retail containers.	Y3
Label development	Develop creamed honey label, liquid honey label	Commercial art services, printing services	Y3

Comel Agro Industry, Welea Honey, Mekelle. Daniel Gebremeskel, Managing Director. Comel has an up-to-date processing building in Mekelle with ISOQAR certification for 2011-2014 (U.K.-based certification agency). Comel's processing line is adequate but needs expansion and upgrading, with a particular need for settling tanks to eliminate entrained air in the processed honey. Comel has problems with shipping honey to market in Addis Ababa because shippers do not want to transport fragile items in mixed loads from Mekele. He says distributors and stores do not like to carry his honey because the price is too high and the honey sells too slowly. He needs access to better quality jars and access to barrels for export. Comel's biggest problem is the high cost of bulk honey. Beekeepers frequently break his contracts to sell to higher bidders. He exported honey (jars) to the U.S. market in 2009 but air freight costs were too high and his asking price was too high due to high overall costs. He has exported to Yemen and South Africa on a limited basis. He exported one container (21 tons) of honey to Norway in 2012. Comel needs assistance in processing line upgrades, processing training, honey distribution and market linkage, linkage to honey producers, and market feedback loop analysis.

Task	Description	Equipment/Supplies/Process	Timeline
Bulk honey processing quality training	Work on eliminating entrained air, separation of wax from honey combs,	Large capacity settling tanks, Polariscope, micron-rated filters, PC-enabled microscope, barrel handling equipment	Y2

	possible overheating, excessive filtration. Improve handling of bulk honey	(forklift), large capacity honey press	
Packaged honey processing training	Work on eliminating entrained air, possible overheating, excessive filtration.	High quality 250, 300, 400, or 500 gram glass or PETE jars with secure closures	Y3
Develop market linkages	Attend trade shows and food fairs with product	Promotional materials, sample jars, laboratory analysis of honey	Y2,Y3,Y4,Y5
Dyce process training (creamed honey)	Grind seed stock, Do trial runs and scale-up production.	Acquire grinders, chilling tank, and refrigeration equipment, retail containers.	Y3
Improve distribution and placement of retail honey	Improve packaging of honey jars, solve transport problems, employ broker to manage Addis shelf space	Cardboard shipping boxes	Y3
Label development	Develop creamed honey label, liquid honey label	Commercial art services, printing services	Y3
Train in bulk honey grading	Learn to measure bulk honey quality parameters: moisture, color, flavor, traceability record keeping	Digital refractometer, digital colorimeter	Y2

Rahi Honey Processing Enterprise, Adama. Ms. Rahel Tamrat, General Manager. Rahi is based in Addis Ababa, and has a processing facility in Adama which the consultant did not see. According to Ms. Tamrat, she has basic processing equipment to process honey into bulk containers. She needs assistance with ISO and HACCP certification, expansion of her processing line, training in processing, expanded market linkages, and assistance with building improvements. Rahi sold 6,000 kg of honey in barrels in 2011 and would like to continue bulk sales.

Task	Description	Equipment/Supplies/Process	Timeline
Meet HACCP, ISO building requirements	Bring building into compliance with all Ethiopian standards to meet HACCP & ISO standards	Complete floor, wall, ceiling finishes, bring electrical and plumbing up to code	Y2
Meet HACCP, ISO, processing line requirements	Bring equipment into compliance with all Ethiopian standards to meet HACCP & ISO standards	Add components to honey bulk and semi-automated processing line, including bulk melter and cooling equipment for Dyce process, large capacity honey press	Y2
Develop market linkages	Attend trade shows and food fairs with product	Promotional materials, sample jars, laboratory analysis of honey	Y2,Y3,Y4,Y5
Dyce process training (creamed honey)	Grind seed stock, Do trial runs and scale-up production.	Acquire grinders, chilling tank, and refrigeration equipment, retail containers.	Y3
Train in bulk honey grading	Learn to measure bulk honey quality parameters: moisture, color, flavor, traceability record keeping	Digital refractometer, digital colorimeter	Y2
Packaged honey processing training	Work on eliminating entrained air, possible overheating, excessive filtration.	High quality 250, 300, 400, or 500 gram glass or PETE jars with secure closures	Y3

Tsedey Honey plc, Suluta. Ms. Birtukan Leyew Alemayyeh, General Manager. Tsedye has an unimproved building shell on a large industrial lot in Suluta, 20 km from Addis Ababa in a very attractive valley. The building needs basic infrastructure including wiring, plumbing, interior food grade finishes, and all honey handling and processing equipment. The building will need ISO and HACCP certification. Tsedey will need training in all aspects of honey processing and marketing. The owner of Tsedey is U.S.-educated in marketing and has a novel production assistance model she wants to implement in the Blue Nile gorge. Tsedey plans to have mobile processing units to ensure clean, ripe honey and to link them directly to the producer. Honey production quotas will be part of their producer assistance plan to prevent side-selling and to exclude low-quality producers. Since

basic production is a weak link in the honey value chain, Tsedey's approach is worth consideration for support. AGP-AMDe will need to determine Tsedey's capital investment capacity to determine how serious a player they are. The consultant insisted on seeing their building as a means of establishing credibility. Tsedey told the consultant they wanted to purchase processing equipment by October 2012. AGP-AMDe could use owner-financed equipment and building upgrades as benchmarks for in-kind contributions from the owners in order to leverage project assistance.

Task	Description	Equipment/Supplies/Process	Timeline
Meet HACCP, ISO building requirements	Bring building into compliance with all Ethiopian standards to meet HACCP & ISO standards	Complete floor, wall, ceiling finishes, bring electrical and plumbing up to code	Y2
Meet HACCP, ISO, processing line requirements	Bring equipment into compliance with all Ethiopian standards to meet HACCP & ISO standards	Acquire full honey bulk and semi-automated processing line, including bulk melter and cooling equipment for Dyce process	Y2
Learn honey processing	Learn skills needed to process bulk and jarred honey – honey melting, straining, filtration, pumping, settling, and bottling	Polariscope, thermometers, digital refractometer, digital colorimeter, digital scale	Y3
Develop market linkages	Attend trade shows and food fairs with product	Promotional materials, sample jars, laboratory analysis of honey	Y2,Y3,Y4,Y5
Dyce process training (creamed honey)	Grind seed stock, Do trial runs and scale-up production.	Acquire grinders, chilling tank, and refrigeration equipment, retail containers.	Y3
Train in bulk honey grading	Learn to measure bulk honey quality parameters: moisture, color, flavor, traceability record keeping	Digital refractometer, digital colorimeter	Y2

Packaged honey processing training	Work on eliminating entrained air, possible overheating, excessive filtration.	High quality 250, 300, 400, or 500 gram glass or PETE jars with secure closures	Y3

Scope of Work Tasks/Responses

Task 1. *Review the existing packaging and labelling schemes (for both bulk and retail packaging at global and national levels) of the different bee products and recommend possible schemes for bee products (at least for honey and wax)*

Response: Manufacturers in Addis are producing polyethylene terephthalate (PET) containers with high density ploye thelene closures. Average price is 3 Birr per container + VAT. Containers are adequate but processors need smaller containers of better quality, either glass or PETE[2] plastic and processors must be trained to use better packing techniques to improve appearance of packaged honey. Smaller, better quality jars would make honey more affordable on a per unit basis to the Ethiopian consumer. Existing jars are mostly 1 kg, which makes for an expensive unit, and too large a unit, as 1 kg probably represents one year's consumption of honey for the average Ethiopian. Better quality jars would be transparent (vs. current opaque or cloudy jars) and display the honey better, and could be sealed tightly, as many of the jars in current use leak, collapse, and spoil the appearance of the jar.

Existing labels are adequate but many have artwork with negative connotations for honey consumers, inappropriate information, excessive information, and should be color coordinated and produced on water resistant stock to avoid label spoilage due to condensation and honey leakage. Honey jars appear to suffer damage in transit from packer to retail outlets and need protective packaging during transport and storage. Honey is very poorly displayed in retail stores due to issues with a. Shelf space and product placement; b. Crystallization (uneven and potential fermentation); c. Product leakage and package distortion and collapse; and d. Poor quality of packaged honey (particularly presence of entrained air bubbles and contaminants).

Labeling

Beekeepers love bees and bee hives and frequently put images of bees and bee hives on their honey labels. Average people are justifiably frightened of bees and bee hives and such labels may convey negative direct and subliminal messages. Flowers on

Processors at farm level, farm gate level, and processor level have very poor quality bulk honey packaging. One extremely valuable AGP-AMDe intervention would be facilitation of manufacture or import of 20 liter (5 gallon) buckets and 200 liter (55 gallon) open-top metal drums with high quality closures. This intervention would ensure quality protection and secure transport of raw and processed honey and beeswax throughout the value chain.

Wax is being processed and exported by the two established processors. Beza Mar is exporting large volumes of wax at a profit and needs to acquire more wax. Linkages need to be established with honey handlers in the tej value chain as other reports say that wax is considered a valueless by-

[2] PETE is a form of polyethylene terephthalate that is clear and glass-like transparent. PET is clear but cloudy.

product by many tej brewers. Comel is processing wax but has supply shortages due to poor linkages with beekeepers. Side-selling of honey is a serious problem in Tigray where Comel operates, though wax does not bring the premium price on the road-side market that white Tigray honey does (this is the side-market for honey). Comel needs to be encouraged to pursue wax purchases from all beekeepers and to concentrate more on wax processing and export as this product is available in his region. Rahi does not process wax and needs to enter the market. Tsedey needs to focus on wax when purchasing new equipment and to make linkages with producers to procure wax with honey.

Task 2. Based on the approved packaging schemes by the AGP-AMDe and its clients (four processors and 5 unions/coops) develop packaging schemes for each client

Response: Consultants will work with each of 4 processors on an individual basis to maintain confidentiality and proprietary information and strategies. The two established processors are packing honey in jars but quality and shelf life is poor due to presence of entrained air (scum on top of honey) and coarse crystallization of honey. The domestic market for packaged honey is strong but is being poorly served. Packaged honey quality improvements will be obvious to processors as they can be seen with the naked eye and retail sales should improve, providing positive feedback and economic reinforcement. The two female processors are not packing for the retail market but could begin do so. They would start from the beginning and would not have to "un-learn" any bad techniques and could have positive sales experiences if they use proper equipment and suitable jars and labels. The project can provide training and possibly access to better jars and labels. A uniform logo should be developed that easily identifies all Ethiopian-sourced retail containers as originating from Ethiopia (country of origin logo) and having met minimum quality standards. Examples include: 'Abyssinian Gold, Ethiopian Honey', 'Ethiopian Gold Honey', or 'Honey from Green Ethiopia'.

Task 3. Select one printing enterprise that can work on label printing and two honey container (jars, barrels, filler, etc.) suppliers/manufacturers and link them with the selected target operator

Response: Addis Ababa Bottle and Glass, Gobena Mugsa, general manager (botgla@yahoo.com or www.bazeto.com, 011-270-26-28) can produce a 500 gram jar but only runs one bottle type at a time. The factory runs beer and soft drink bottles most of the time. They will run 500 gm jars if 1 million jars are ordered. They may start up a second bottle line next year. Roha pack (Teshome Kifle, rohapack@ethionet.et, 0114-19 51 43/42) produces a variety of PET bottles but in June 2012 the manufacturing line was down. New injection molds are expected in September when manufacture of 250, 500, 750 ml, and 1 kg PET jars will resume. Honey packers need a range of smaller, high quality glass or PETE jars in the 200, 250, 300, 350, and 400 gram size as well as 500 gram jars. PET is semi-opaque and not the best quality. Plastic jars need an internal safety seal as they are prone to leak because they can be compressed and subject to collapse. Glass jars are better accepted by the public (lingering concerns about off-gassing from plastic and perception that glass is more "natural") and seal and transport better due to rigidity of glass.

Task 4. Propose sustainable modalities of distribution of packaging materials and labels

Response: Due to time constraints, the consultant needs assistance of AGP-AMDe in investigation of mechanisms of logistical functions at all levels of honey value chain to recommend interventions to improve quality control, efficiency, and feedback loops from retailers and consumers to processors. AGP-AMDe should investigate interventions with jar manufacturers to improve product lines and availability. The project should investigate short-term import of honey packaging from regional suppliers.

Task 5. Assess the existing capacity of the printing enterprise and the two manufacturers i.e., expertise & technical staff, management capacity for handling new interventions

Response: Existing labels are adequate but many have artwork with negative connotations for honey consumers, inappropriate information, excessive information, and should be color coordinated and produced on water resistant stock to avoid label spoilage due to condensation and honey leakage. Label material should be specified to meet requirements of individual processor's labelling machines. Labels should be in full color with ultraviolet varnish or gloss lamination applied to the printed side. Basic labelling information should be included to meet local and international statutory requirements. Statutory requirements for EU and US markets can be supplied by the consultant. AGP-AMDe needs to provide high quality commercial art assistance with appropriate software application skills. Printers may need assistance in acquiring proper printing stock (water resistant and/or poly labels) to provide high quality permanent labels.

Task 6. Identify capacity gaps of the printing enterprise and the two manufacturers for possible technical or financial support and assist them to come up with winning proposals

Response: The packaged honey sector is very small in Ethiopia and input prices are high due to poor economies of scale and the need for specialized products. As production of raw honey increases AGP-AMDe should be prepared to potentially partner with honey supply chain actors to scale-up production and improve quality.

Task 7. Propose follow up mechanisms

Response: AGP-AMDe in-country staff should meet with container manufacturers and printing enterprise managers to communicate the size and scope of the AGP-AMDe project and explore opportunities to help support leverage of business expansion of existing manufacturing capacity or expansion into new product lines that will support the honey and other processed food industries.

Task 8. Assess market demand and trends for bee products considering the National, Middle East, Sub-Saharan, USA and EU markets and Ethiopia's comparative advantage with regard to bee products

Response: There will be strong demand for Ethiopian honey on the world market due to a world-wide shortage of honey in general and in particular a shortage of honey that is not contaminated with chemicals, drugs, C4 sugars, and GMO pollen. Comparative advantages of Ethiopian honey include production in diverse pristine environments using healthy bees that need no drugs or chemicals, multiple high quality floral sources, low technology on-farm processing that does not harm honey with heat,[3] the potential for widespread organic certification, and the potential for competitive prices as production levels increase due to introduction of sustainable management practices.

[3] Most large honey producers use gas or electric wax melters and heated sumps and sometimes flash heaters as part of the honey extraction process. Heat can damage honey quality permanently and can

The majority of honey produced in Ethiopia is dark in color and strong in flavor. Dark honey is highly valued in the Middle East and Germany, but is assigned the lowest grades and prices in the U.S. Light honey produced in northern Ethiopia will bring a premium price on the market in the US, EU, and Middle East, though the supply of light Ethiopian honey is very small. The EU and Middle East are probably the natural markets for Ethiopian honey due to proximity for shipping but also because these two markets are more sophisticated and discriminating in terms of honey quality and provenance and will better appreciate and pay for the subtle qualities of Ethiopian honey.

The food industry uses approximately 50 percent of the world honey supply and typically uses dark, stronger flavored honey as an ingredient in processed food. Dark honey usually sells at a lower price, and stronger flavors are mitigated by the small amount of honey used in most processed foods, though honey does improve flavor and palatability characteristics of baked goods. Table honey accounts for the remaining 50 percent and is typically shipped in 55 gallon drums, though some trade does occur in 250 gallon 'totes' and tanker trucks. Less than 1 percent of world honey trade occurs as bottled honey. A productive and logical focus for AGP–cooperating honey processors is to focus on bottled honey for the Ethiopian domestic market, and to sell bulk honey on the export market. Lessons learned from direct feedback on the domestic market can be leveraged to improve product and service to the bulk export market.

The US is not a high value market for honey and is in a state of turmoil. Approximately 65 percent of honey consumed in the US is imported, and China is the primary supplier of low price honey. The US import market is in turmoil due to federal prosecution of several major honey importers who are accused of circumventing tariffs ($2.64/kg) on Chinese honey by trans-shipping through third party countries to disguise country of origin, ultra-filtration to remove pollen to avoid country of origin detection, and mis-labeling of honey as other products to avoid tariffs. See: www.foodsafetynews.com/2011/08/honey-laundering/ The federal government (FDA) also has refused to adopt a 'Codex' international-type honey standard, relying on an older, out of date standard. As a result, many states have adopted 'Codex' style standards, and several Florida residents have initiated a class action lawsuit in April 2012 accusing many of the largest U.S. honey packers of ultra-filtering pollen from the honey and thus selling filtered 'syrup', not a natural, pollen-rich honey. See: http://www.foodsafetynews.com/2011/11/tests-show-most-store-honey-isnt-honey/ and http://www.foodsafetynews.com/2012/04/lawsuit-can-stores-call-honey-with-no-pollen-honey/

Resolution of the prosecution of importers and class action law suits mentioned above could make the US market more attractive for Ethiopian honey. The US and world honey markets are small relative to other commodities and many of the players know each other. The fact that the U.S. is finally acting on serious honey quality issues and is moving towards the approach taken by the European Union to ensure higher quality, traceable honey, should improve acceptance of the pure, raw product coming out of Ethiopia. AGP-AMDe can increase awareness of the presence of Ethiopia in the world honey market and awareness of the quality of Ethiopian honey by sponsoring Ethiopian processors' appearance at Apimondia and world-wide food fairs and trade shows.

While the U.S. bulk market evolves, there are opportunities for sale of bulk Ethiopian honey to specialty honey packers in the U.S. such as Dutch Gold in Lancaster PA, Tropical Blossom Honey in

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be measured quantitatively by measuring HMF and diastase levels. The consultant saw, and heard of no producer or intermediate honey collector using heat in honey extraction or processing, which is excellent and a comparative advantage over developed countries. The consultant did see a sign in Beza Mar's processing facility (HACCP critical control points) listing honey processing temperatures that were on the high side of the acceptable range, which could affect honey quality negatively.

Edgewater FL., Sunshine Trading in Davis, CA, and Glorybee Foods in Eugene, OR. There are also large Ethiopian diaspora communities in the U.S. in Washington, DC, Seattle, WA, and Minneapolis, MN. AGP-AMDe should explore custom co-packing with the specialty honey packers listed above as well as with generic custom-copackers in the US to produce a branded Ethiopian honey targeted at the Diaspora community as well as specialty food stores.

Task 9. Assess quality parameters of the bees' products and compare them against national/global standards

Response: When sustainable production methods are introduced with regional raw product sorting and processing, bulk farm gate quality will be excellent as Ethiopian producers use no heat in honey processing (affecting HMF and distaste levels), use no drugs or chemicals to control bee pests (unlike China, the EU and US), and have little or no exposure to agri-chemicals and GMO crops, ensuring a very high quality raw product that will be in high demand on the global market if post-farm gate value chain participants are trained to protect honey quality.

Task 10. Recommend efficient processing and marketing systems for each of the feasible bees' products.

Response: Honey is being processed too rapidly through existing processing chains and visible quality of finished product is poor. Honey jar size, composition (low quality plastic), and packaging techniques need improvement. Crystallization is an issue in packaged honey and can be addressed by training processors in the Dyce process for producing high quality creamed honey. AGP-AMDe needs to perform a survey of honey consumer preferences to determine perception of crystallized honey in the marketplace. Very fine textured white crystallized honey brings the highest price in the marketplace in Tigray. The AGP-AMDe project should bring in a limited quantity of high quality jars to use as samples for display of Ethiopian honey at trade shows and fairs. Honey jars appear to suffer damage in transit from processors to retail outlets and need protective packaging during transport and storage. Honey is very poorly displayed in retail stores due to issues with a.) shelf space and product placement; b.) crystallization (uneven and potential fermentation); c.) product leakage and package distortion and collapse; and d.) poor quality of packaged honey (particularly presence of entrained air bubbles).

Honey processors need to request or pay for more prominent eye-level, center-isle shelf space and either take responsibility for or hire brokers to rotate stock to ensure fresh, attractive product on the shelf and remove and recycle damaged or out-of-date product. Honey packers need a range of smaller, high quality glass or PETE jars in the 200, 250, 300, 350, and 400 gram size as well as 500 gram jars. PET is semi-opaque and not the best quality. Plastic jars need an internal safety seal as they are prone to leak because they can be compressed and subject to collapse. Glass jars are better accepted by the public (lingering concerns about off-gassing from plastic and perception that glass is more "natural") and seal and transport better due to rigidity of glass. A survey needs to be conducted to determine consumer preference for size of honey containers. At this time most honey is being offered in large – 750 grams – 1 kg jars – which results in high per unit prices and probably acts as a barrier to purchase by all but affluent consumers.

The beeswax value chain needs attention from processors. Wax is currently being collected, processed, and exported. Anecdotal evidence suggests wax is wasted in tej honey collection and

production process. Processors could probably link with tej producers and their beekeeper suppliers to collect waste wax for processing and export.

Task 11. Assess and recommend possible linkages with buyers (both national and international)

Response: Processors would benefit from travel to food fairs for initial exposure to international food exhibitions and market expectations. Food fairs to target in the EU include Biofach (http://biofach.de), ANUGA (Http:// anuga.com),and SIAL (http://www.sialparis.com), and the Fancy Food Show (http://www.specialityfood.com/fancy-food-show) in the US. The EU market is probably the natural export market for Ethiopia due to shorter shipping distances and the ability of Ethiopian honey to meet EU consumer and regulatory demand in Europe (both higher than US demands). The Ethiopian diaspora market in the US and Canada is a potential market that needs to be explored via direct export or through US-based custom co-packing of bulk Ethiopian honey. See: www.abyssiniamarket.com, http://www.pitt.edu/~kloman/markets.html and www.yagermoya.com In custom co-packing, bulk honey is shipped to the US to a contract processor who processes the honey in an approved facility, provides jars, provides label services as per the specifications of the Ethiopian bulk honey supplier, and distributes the honey to retail or wholesale groceries on a per/jar fee basis. The Ethiopian bulk honey processor/owner retains ownership through the value chain up to the point of sale to the retailer or wholesale distributor and retains profit margins at each level. The consultant has professional relationships with several such custom co packers in the US and can explore costs and logistics for this activity. An information packet from one custom co-packer is attached as Appendix II.

Task 12. Conduct competitiveness constraint analysis of the Ethiopian honey value chain with particular reference to smallholder producers and agro-dealers to effectively benefit from opportunities in the mainstream and niche markets

Response: Honey prices in Ethiopia are artificially high due to supply side constraints and high demand at the farm gate The average school teacher in Addis Ababa (salary 1400 Birr/month) must spend 2.39 day's wages to buy a kg of average honey (110 Birr/kg). By contrast, the average North Carolina (US) school teacher (salary $3583/month) spends 0.09 day's wages to purchase 1 kg of honey ($11.57/kg) at the retail level. As supply increases due to AGP intervention on the production and supply side, volumes should increase and farm gate prices should drop due to competition and increased demand. Producer/farm gate income should increase due to higher volume sales and improved economies of scale at the producer level. AGP-AMDe has employed a summer intern to research price points on the honey value chain in Ethiopia. SNV BOAM commissioned an Integrated Value Chain Analyses for Honey and Beeswax by Global Development Solutions, LLC in 2008. This report has extensive information on value chain analysis on honey produced from the three bee hive types used in Ethiopia and can be found through the Google search engine.

Task 13. Recommend strategies and implementable actions for AGP-AMDe to facilitate improved efficiencies and upgrading in bee product production and processing

Response: See Honey Processing Development Strategy for AGP-AMDe Project.

Potential Timeline

August 2012

- Work with custom co-packers in US to facilitate processing of Ethiopian honey at US facility
- Network with US-based Ethiopian food brokers and grocery stores to place AGP-AMDe sponsored Ethiopian honey in US-based Ethiopian stores

September 2012

- Present at African Api Expo and network at conference to establish market linkages
- Begin training 2 existing male processors in honey packing techniques and honey product line diversification including creamed honey.
- Facilitate equipment upgrades and additions at two male processors and order equipment
- Work with 2 female processors to upgrade buildings to meet sanitary requirements to ultimately meet ISO and HACCP standards
- Work with female processors to identify honey processing equipment needs
- Continue work in Addis to procure better packaging and recommend possible partnerships with glass and plastic manufacturers to upgrade equipment to produce better jars.
- Work with printers and commercial artists to design labels and design country of origin logo
- Debrief AGP-AMDe staff on Ethiopia honey value chain cost analysis

February 2013

- Follow up with 2 existing processors on quality control
- Train processors in Dyce creamed honey process
- Assist new processors with installation of honey processing equipment
- Train 2 new processors in operation of processing equipment
- Train processors in beeswax-based cosmetic production
- Prepare trade show materials and samples
- Attend Biofach 2013 as observers and/or as participants in Ethiopia country booth

June 2013

- Identify sources of bulk honey containers – barrels and buckets
- Train processor's honey collectors in quantitative field honey quality analysis

- Train new processors in establishment of traceability standards and laboratory analysis protocol
- Reinforce quality control training for honey collectors for all processors
- Train processors and collectors in propolis quality control, source separation, and preparation for market

October/November 2013

- Work with new processors to exercise quality control on new crop honey and to prepare honey for internal and export market
- Work with processors and printers to custom design labels
- Work with all processors to prepare samples and production inventory for trade shows
- Ensure all export-bound honey meets Codex quality standards and has laboratory certificates

Appendix I: Honey processing situation analysis

The comparative advantage of Ethiopian honey is the fact that the honey is pure, uncontaminated, and should be relatively raw, or unprocessed. Pollen is a natural constituent of honey and the EU requires honey to retain pollen so that plant source and country of origin can be determined. Filtration with filter media smaller than 40 microns removes pollen and is illegal in the EU. Because of the unwillingness of the federal government in the United States to adopt quality standards for honey (such as the Codex alimentarius, the world-wide standard: www.FAO.ORG/Codex/ALINORM01/Al01_25e.pdf), individual US states are adopting honey quality standards. Several states joined together in May 2012 in a class action lawsuit against several large US honey processors over excessive filtration (ultrafiltration) of honey wherein all pollen and foreign material are removed from honey. The reason for ultrafiltration by US honey processors is to give the honey a 'sparkling' clarity, but also to remove any nuclei on which honey crystals may form, thereby extending effective shelf life (in a liquid state) of the honey. The Chinese also ultrafilter honey to remove pollen to avoid detection of the country of origin. Much Chinese honey is trans-shipped through other countries to avoid punitive tariffs imposed on Chinese honey in 2002 by the US Federal Trade Commission, and removal of pollen makes traceability difficult.

(See: http://www.foodsafetynews.com/2011/11/tests-show-most-store-honey-isnt-honey/) Again, the fact that Ethiopia produces a pure, raw honey with natural constituents is an advantage.

It appears that much Ethiopian honey is prone to rapidly crystallize into coarse crystals. Honey consists of two principal sugars – glucose and fructose – in solution with water. Crystallization is a process in which the glucose molecules form crystals with some of the water molecules. Generally, honeys with a high glucose/fructose ratio will crystallize more rapidly, and honey with natural constituents such as pollen will crystallize rapidly. Naturally crystallized honey tends to form coarse crystals and can separate into a coarse crystal phase and liquid phase which is prone to ferment. Finely crystallized honey has a pleasing texture on the tongue and uniform appearance and can be induced by the processor using a procedure known as the Dyce process. Ethiopian processors would benefit from producing creamed honey (fine crystals) via the Dyce process, thereby creating a high quality consumer pack of honey with all natural constituents and a long shelf life.

Dyce Process

To carry out the Dyce process, processors need a commercial grinder to create seed stock, mix tanks that can be cooled or space under refrigeration, and bottling tanks that can be cooled or placed under refrigeration. Dyce process honey does not need to be sold in a transparent container, as the honey is opaque, and is best sold in opaque containers as it tends to separate from glass jar walls and makes an unattractive air space. Thus, existing containers on the market in Ethiopia would be well suited for Dyce process honey.

Appendix II: Customer Information Packet

Dear Prospective Customer,

Enclosed is a copy of our "getting started" packet that you requested. I understand that there is a lot of information to "digest and it can be overwhelming. With that said I would like to summarize the process steps and, hopefully, make things a little easier for you.

1. **Please fax back the completed customer information sheet to (919)496-5931**. Be sure to include the phone number that you would like for us to call you on.

2. The confidentiality agreement is for you**. We would need a completed copy faxed to us**. Please feel free to have an attorney review, make changes, or completely redraft. Again, this is for your benefit. Please know that in over 20 years of business, we have never experienced any issues or had dissatisfied customers with regards to the confidentiality of their recipes.

3. **You will need to have your product tested by a lab or university so the proper classification and a baseline ph can be established**. We have listed NCSU as a resource. You certainly can choose anyone you would like, however NCSU is very good and their staff is great to work with. Joanna of the NCSU staff normally e-mails the ph letter and testing document along with the nutrition facts and ingredients. You can then forward that e-mail to us.

4. **We will need a sample of your product along with your written recipe** (including all brand names that you prefer), weights in lbs or ozs, the cooking process, and how much the recipe makes.

5. We have also listed several label companies in the packet. **You will need to have labels made prior to our running your product**. You may use one of the companies listed or another of your choice. We do list the contact for the label law information and some specifications for the labels. However, we recommend you speak with the authority on the law about what can and cannot go on the label if questions. Make sure to communicate this to your label maker. Labels need to be wound correctly or there will be a charge for rewinding each roll.

6. **You also will need to purchase product liability insurance**. We have listed a couple of insurance companies as resources for you, but you can call whomever you choose. We will need a copy of your Certificate of Product Liability Insurance before we run your product.

7. **We have included information on State Sales & Use Tax and you will need to apply for a state ID#**. We will need a copy of the exception form from your state in the file prior to running your product.

8. **We can schedule a first run of your product (a 75 gallon batch) once you have completed these steps and have approved the estimated pricing**.

I hope this simplifies matters for you. If at any time you still need clarification or guidance, please feel free to contact us. Thanks for your interest in Bobbees Bottling and we look forward to the opportunity of working with you.

Sincerely,

Jack Pyritz

President

CUSTOMER INFORMATION SHEET

COMPANY INFORMATION: 1st MEETING DATE:_____

Company:_____ Bus. Phone: _____

Address: _____ Fax: _____

_____ E-mail: _____

_____ Website: _____

Contact: _____

Cell Phone: _____ Home Phone: _____

Customer Products	**Jar Size**	**Cap Color**	**Shrink Color**

NOTES:

CONFIDENTIALITY AGREEMENT

This Agreement entered into this day _____ of _____, _____ by and between _____, with facilities located at _____, (hereinafter referred to as "**Customer"**) and **BOBBEES BOTTLING, INC.**, (hereinafter referred to as "**Supplier"**), with facilities located at 3959 Highway 39 South, Louisburg, NC 27549.

WITNESSETH: Whereas, it is agreed and recognized that the **Supplier** is a wholesale manufacturer having novel and original products, formulations and processing techniques, and whereas, it is understood that by the undersigned's employment or association, to include but not limited to manufacturing products for

Customer: The undersigned has become privy to certain formulation and processing techniques aforesaid, and whereas, it is further recognized that such formulation and processing techniques as aforesaid are a valuable confidential commodity belonging exclusively to **Customer** and whereas, it is agreed that the mutual benefits exchanged between the parties are sufficient and adequate consideration to support this Agreement and not, therefore, it is agreed that the undersigned by his/her association with **Customer** agrees not to divulge any of the formulation and trade secrets of **Customer**, its marketing information, processing techniques, or any other information acquired or learned through my association with **Customer**.

Witness our signatures this _____ day of _____, _____.

_____

(Customer)

Bobbees Bottling, Inc.

_____**(Supplier)**

Nutritional labeling and pH testing:

North Carolina State University

Department of Food, Bioprocessing and Nutrition Sciences

Dr. Fletcher Arritt

400 Dan Allen Dr.

129 Schaub Hall Box 7624

Raleigh, NC 27695

Phone: 919-513-0176

Fax: 919-515-7124

Email: fletcher_arritt@ncsu.edu

Dr. Arritt's Program Assistant: Tristan Laundon 919-513-2090

Please visit NCSU Department of Food, Bioprocessing and Nutrition Sciences website below BEFORE submitting a sample of your product:

http://ncsu.edu/foodscience/extension_program/entrpreneurs.html

Then click on the following topics for more details…

Getting Started in a Food Business

Food Product Testing

Nutritional Labeling

Please visit www.southerntesting.com/TransFat.html for information regarding nutritional labeling information for FDA Trans Fat Regulation 2003

NCSU Fees:

Product tested ($100 per product)

Nutritional Facts Panel prepared ($100 per product)

"Goodness Grows in NC" program:

North Carolina Department of Agriculture and Consumer Services

Division of Marketing

Jeff Jennings

P.O. Box 27647

Raleigh, NC 27611

Phone: 919-733-7887

Fax: 919-733-0999

Please visit the website for more information:

http://www.ncagr.gov/markets/gginc/application.htm

Advise Mr. Jennings that Bobbees Bottling will be packing your product and he will give you permission to use the "Goodness Grows in NC" sign on your label. After the first run with us he will require you to send one bottle of finished product to the above address.

UPC Uniform product code:

GS1 US

7887 Washington Village Drive

Suite 300

Dayton, OH 45459

Phone: 937-435-3870

Fax: 937-435-7317

E-mail: info@gs1us.org

Website: www.gs1us.org

Estimated cost for full membership: $800.00

Uniform product code number should be acquired **BEFORE** label goes to print

Application for Trademark/Service Mark Registration:

North Carolina Department of the Secretary of State

Trademark Section

PO Box 29622

Raleigh, NC 27626-0622

Phone: 919-807-2162

Fax: 919-807-2215

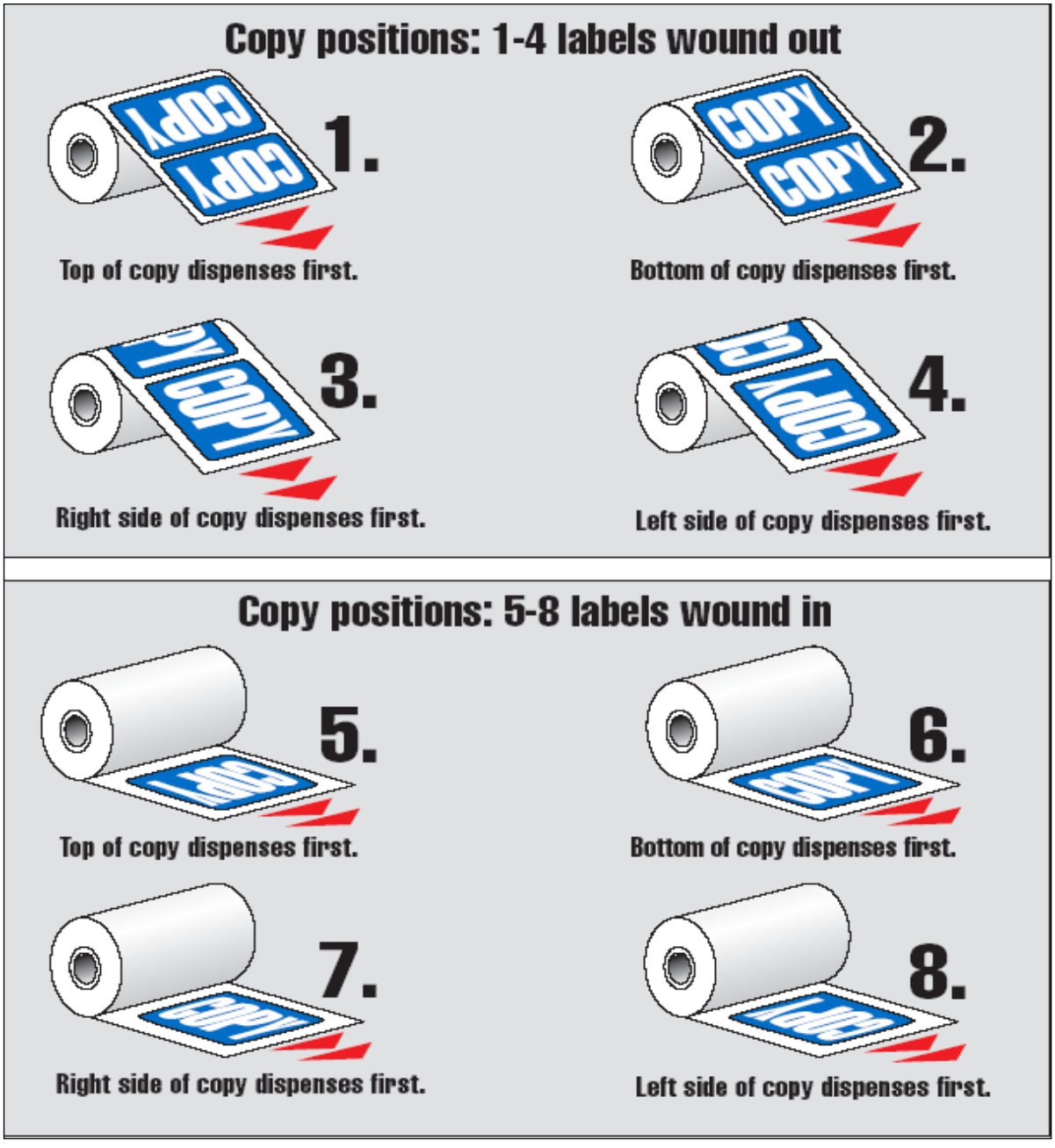
Email: trademark@sosnc.com

Label Information Requirements:

NCDA & Consumer Services

Label Winding Requirements:

1. ALL LABELS MUST BE ON #4 WIND (BELOW).
2. LABELS MUST HAVE 3" CORE.
3. THERE MUST BE 1/8" GAP BETWEEN LABELS.
4. MUST HAVE AT LEAST 1,500 LABELS PER ROLL.
5. IF LABEL IS WHITE – MUST HAVE A BORDER.
6. $10/Roll REWIND FEE FOR LABELS WOUND INCORRECTLY



Allergen Policy

Major food allergens as defined by the FLACP are:

Milk	Tree Nuts
Eggs	Wheat
Fish	Peanuts
Crustacean Shell Fish	Soybeans

Bobbees Bottling, Inc. is aware of the above reported food allergens. We have customers that use some of these ingredients in their recipes, thus we have them in our facility and produce products that contain ingredients from the list above. Bobbees Bottling, Inc. does everything in its power to plan similar (allergen) recipes to run in conjunction with each other. We also use GMP procedures in cleaning, tear down and sanitizing of our equipment and facilities each and every day. With this said, nothing is 100% guaranteed. This is your notice that these allergens are used from time to time, to produce other products. It is required by law to include any allergen information on your labels. Please refer to Section 403 of the Federal Food, Drug and Cosmetic Act (21 U.S.C. 343). If you do not have allergens directly in your product or recipe, you may want to consider adding the statement: "produced in a facility where allergens are present."

Thank you,

Jack E Pyritz, Jr.

President

Bobbees Bottling, Inc.

ANNEX III. ACTION PLAN FOR AGP-AMDE ON FERTILIZER, JUNE 2012, JOHN MELLOR

BACKGROUND

A recent statement of policy from the government in effect calls for a major set of actions from AMDe. The work of JMA on the Enabling Environment has, in keeping with the PIF and other government policy, placed a major effort on a major increase in the rate of growth of inorganic fertilizer use. The data show clearly that the AMDe growth targets cannot be met without that. The JMA effort has had three thrusts, again consistent with the PIF and the subject of a series of memos within AMDe. They are interrelated

1. Increase the efficiency and the capacity of the cooperative fertilizer distribution system
2. Open up to the private traders to distribute fertilizer
3. Increase the profitability of fertilizer to farmers through improved practices.

We have seen bringing private traders into fertilizer distribution as central to that strategy. It now seems that that can occur. The rest of this statement deals with the required AMDe reaction to that.

In viewing AMDe action it should be kept in mind that USAID places a great deal of emphasis on opening to market forces and private enterprise. Opening fertilizer distribution to the private sector offers opportunity for a very liege addition to private activity in agriculture. USAID will be most pleased when the aggregate numbers come out over the next few years. AMDe does not want to miss that opportunity. Realizing that potential is complex, as indicted below, but fully feasible for AMDe.

THE CURRENT OPENING TO THE PRIVATE TRADERS - WHAT IS REQUIRED OF AGP-AMDe

The recent announcement by the Director, Agricultural Inputs Supply Marketing, Ministry of Agriculture, that there are no government imposed barriers to the private sector engaging in fertilizer distribution has changed the situation dramatically. Our interpretation of the current situation is as follows.

1. The government's intention is that the private sector should be free to enter fertilizer distribution. We are monitoring this in the following ways.
    a. Checking that the licensing requirements are similar for fertilizer and grain (both bulk commodities) and therefore feasible by the private traders.
    b. Checking to see to what extent private traders are ready to enter into fertilizer distribution in time for the 2013 main season cropping
    c. Checking to be sure private traders can purchase fertilizer from the Agricultural Inputs Enterprise – since the stocks on hand are very high, this seems not to be a problem...
2. The government continues to see the cooperative sector as central to its rural agricultural development strategy generally and specifically in fertilizer distribution and it is clear the

cooperatives are in general very week. It is likely that if the cooperatives cannot compete the private traders will again be banned – probably this time irreversibly so. That requires:

a. Major effort in the AMDe Woredas by IFDC, in consort with the effort by Commissar to ensure that the cooperatives are competitive with the private sector in a substantial proportion of the AMDe Woredas and moving to full coverage.

b. A survey by IFDC as to the current coverage of the AMDe Woredas by cooperatives currently competitive with the private sector. The private traders see the full margin between the port price and the farmers as providing ample profitability. Initially they will operate at those gross margins, but in a year or two they are likely to start undercutting the cooperative. In the meantime the productivity of the cooperative has to be increased. It is a high priority that AMDe see that that occurs. If IFDC cannot do this at least roughly IFPRI should be commissioned to do such a study.

c. Monitor entrance of private graders into fertilizer distribution in the AMDe Woredas and consider some technical (not subsidy) assistance to them, but not to the point of impeding development of the cooperative sector. At this point we believe the door is open to the private trade and AMDe should act accordingly.

3. The competitive thrust between Cooperatives and Private Traders will advance more usefully if major effort is made to increase the efficiency of fertilizer use by farmers.

a. The focus group analysis shows that while farmer have considerable respect for the extension personnel they follow low productivity soil fertility practices.

b. Thus it is important that IFDC plans for learning by dong (demonstrations) be pursued on large scale throughout AMDe Woredas. This is critical complement to the efforts to upgrade the efficiency of cooperatives in fertilizer distribution, and the entrance of private traders.

c. The initial effort needs to concentrate on the simple things farmers on general are not doing e.g. split applications, the rig t mix of DAP and UREA, the complementarity of organic matter and how to add, the right level of basic nutrient application. Sophistication from soil testing, lime, micro-nutrients should come later.

ANNEX IV. CRITICAL ISSUES/QUESTIONS FOR FERTILIIZER POLICY, JUNE 2012, JOHN MELLOR

Three background elements are important to the treatment of critical issues with respect to fertilizer growth. They place the importance of fertilizer in growth and poverty reduction, and the characteristics of the dominant users of fertilizer. These are summarized in the next three sections

Rapid Agricultural Growth Drives Poverty Reduction and Overall Growth

My paper presented to this group in January provided data and analyzed the relationships behind the Agricultural Development Led Industrialization (ADLI) strategy that drives the national 20 year vision. As discussed below ADLI gets the bulk of its growth from high potential areas and implicitly from the small commercial farmer. Those farmers spend half the increments to their income in the local, rural, non-farm sector. That sector is employment intensive and its growth drives the rapid reduction in poverty that is always associated with rapid growth by the small commercial farmer. Those processes have been working very effectively over the past two decades with major reductions in poverty.

As the economy grows the relative importance of agriculture in GDP declines. By middle income status the rate of agricultural growth continues to influence the overall growth rate but it is no longer the dominant factor. In contrast, agriculture continues its dominance of employment growth and poverty reduction. Thus the ADLI strategy lays the groundwork for long term rapid growth in employment and poverty reduction.

Changing Sources of Growth in Agriculture

The PIF documents the changing sources of growth for agriculture, which I summarize below and briefly extend.

Following the restoration of peace and stable government in Ethiopia agriculture sustained a very high growth rate, largely through improvements in traditional husbandry with associated increased labor input. In the first several years much of the growth was recovery from the dislocations of the previous period, then the rapidly growing extension service played a critical role in keeping the process going. The use of commercial fertilizer (Urea and DAP) grew but until very recently the base of use and the growth rate were insufficient to have a significant aggregate impact on agricultural production. That is, until very recently modern varieties and fertilizer played a very modest role in the growth rate.

We know from logic as well as the experience of India and other countries that rode a lengthy period of rapid agricultural growth from basically traditional sources, that that source of growth runs out. Ethiopia too has reached that stage. Fortunately the base of inorganic fertilizer use, almost entirely Urea and DAP, and the increased technical capacity of the extension service provide the basis for maintaining past high growth rates through purchased input based increased intensity. Rapid growth in use of Urea and DAP fertilizer dominates this process. This paper is concerned with this second stage of growth. This stage of growth can be prolonged with improved soil fertility practices, using large quantities of compost, and liming.

Eventually the growth from a simple approach to fertility also runs out. Then greatly increased sophistication will be needed in soil testing, fine tuning fertilizer application to the crop and soil specifics, and improved crop varieties will need to be introduced every few years, requiring enlarged research, increasingly sophisticated extension, and massive expansion of commercial seed. At that stage a high proportion of growth comes from shift to high value commodities, including the gradual

dominance of the livestock sector and its rapidly growing feed requirements. The ground work for this stage needs to be developed now as it takes time.

Concentration on High Potential Areas and Farmers

Over 70 percent of the cultivated area is in moisture reliable areas (table 1.) Given the higher yield, a larger proportion, perhaps as much as 90 percent of the value of agricultural output is in those areas. Although 40 percent of rural households cultivate less the 0.5 hectares of land, that comprises only ten percent of the cultivated land and perhaps an even smaller percent of output. Seventy five percent of land and probably 80 percent of output is in holdings of over 0.9 hectares – almost all of which is in holdings of less than five hectares. These holdings occupy 40 percent of rural families.

Note that the average size of farm for cooperative members, who are the commercially oriented farmers, is two hectares. It is these small commercial farmers who not only produce the output but who are able and willing to modernize and increase production. They are the families who drive rural employment growth and poverty reduction.

Thus over half of the cultivated land and perhaps 2/3rds of the production is in farms of over 0.9 hectares located in moisture reliable regions. That is where the big results will come. These of course are the areas and the farmers who get the best response from fertilizer.

Table 5: Ethiopia: Total area cultivated by farm size and agro-ecology

Farm Size (hectares)	Moisture Reliable Cereal	Moisture Reliable Enset	Humid Lowland	Drought Prone	Pastoralist	Total
			(percentage of national total)			
0.0 - 0.25	0.9%	1.1%	0.1%	0.6%	0.1%	2.7%
0.25 - 0.52	2.9%	2.4%	0.1%	2.2%	0.2%	7.9%
0.52 - 0.90	7.1%	2.9%	0.3%	3.8%	0.3%	14.4%
0.90 - 1.52	14.0%	2.7%	0.4%	6.7%	0.6%	24.3%
1.52 - 25.20	33.5%	2.2%	0.8%	13.1%	1.1%	50.7%
Total	58.6%	11.2%	1.6%	26.4%	2.3%	100.0%

[a] Each farm size interval (quintile) contains 20 percent of Ethiopia's small farms, approximately 2.57 million farms.

Source: Calculations from the Agriculture Sample Survey of 2007/08, Central Statistical Agency (CSA)

Approach of the Paper

This paper is devoted to issues with respect to achieving very rapid growth rates in the use of inorganic fertilizer. The approach is to state ten issues and to provide back ground on each as a basis for discussion of needed actions. The data and analysis available on these issues is sparse. Until those data requirements are met reliance must be placed excessively on experience of other countries. While useful in a broad diagnostic sense these analogies are rarely a close match to conditions in Ethiopia.

There is also an emphasis on short run (i.e. five years) acceleration of the fertilizer growth rate – the time span of the AMDe project under which this work is being done. There is also extra focus on the high potential, assured rainfall areas given the concentration of AMDe work in those Woredas.

Fertilizer Issue 1: How Important is Fertilizer Growth to Overall Agricultural Growth?

The PIF provides detailed supporting data that over 2/3rds of the government's target agricultural growth rate is specifically attributable to growth in fertilizer use. Those figures commence with the initial base of use, which is now substantial, and puts on that base a much faster growth rate than in the past. Without doubling the growth rate for fertilizer (and doubling of use in five years) the government's targets will not be met. Thus, immediate, greatly accelerated growth in fertilizer use is essential to meeting the targets. That growth will be the measure of success in the agricultural growth rate and its objective of economic transformation and poverty reduction. Delay in achieving that acceleration will be the measure of delay in achieving the government's objectives. There is urgency.

Of course fertilizer interacts with other changes so improvements in seed availability, research/extension etc. are all part of achieving the results. But rapid fertilizer growth is essential. That is also consistent with the experience in low and middle income countries achieving rapid growth rates in agriculture. Without the accelerated growth in fertilizer use all the other measures fall short. Fortunately, with the right strategy, priorities and policies, the required growth rate in fertilizer use is more easily achieved than that for other areas such as seed production with more complex institutional requirements.

ISSUES/QUESTIONS

1. What are the percent of users and the rates of application of inorganic fertilizers by the small commercial farmers (1 to 5 hectares) in the assured rainfall areas?

2. How does this compare with recommendations?

3. What are the implications to the near term (five year) growth rate in fertilizer use?

Fertilizer Issue 2: How Profitable is Fertilizer Use at the Farm Level?

High rates of fertilizer use are always associated with high profitability. Subsidies may add to profitability and hence the rate of growth, but for fast rates the underlying profitability must be high. In Ethiopia the physical conditions for the bulk of production are favorable to high profitability.

The focus groups found farmers fully aware of the role of fertilizer and perceiving that it is highly profitable. The extension service has accomplished much. Some farmers in the focus groups are using fertilizer at high recommended levels. But overall there is substantial non-use and use at levels considered low by experimental and international experience. That is likely a reflection of low profitability. However, the evidence is mixed and indirect.

For example, a careful IFPRI paper from two years ago, based on analysis of carefully collected, randomized, detailed National Statistical Agency sample survey data show profitability as quite low. These data may be somewhat biased for this purpose. For example unfertilized fields may be inherently more fertile and located close to farm residences with more organic matter used. The focus groups indicated that farmers make heavier applications on the less fertile and more distant fields and that they tend not to use organic matter on fields receiving inorganic fertilizers. The science suggests this is incorrect practice.

Nevertheless, the IFPRI data show returns sufficiently low as to indicate a significant problem. Again that is consistent with the focus groups that showed considerable misinformation, and practice by farms – widely different ratios of DAP to Urea that seem not to be related to soil differences, rare use of organic matter on the same field as inorganic despite the complementarity, little use of top dressing, and the likelihood that placement is poor.

The IFPRI paper explores trends in and determinants of cereal yields in Ethiopia using data from a series of nationally representative agricultural sample surveys. In addition to descriptive analysis, yield response functions were specified and estimated for the three major cereals – teff, wheat, and maize. Regression results confirm that chemical fertilizer application raises yields in the production of these crops. The extent of the rise is not large, however.

A number of indicators of returns to fertilizer use, including output-input price ratios and value-cost ratios, were also computed. The levels of these ratios, evaluated at national-level averages, do not signify very high returns to fertilizer use in the production of the three crops considered. The estimated output/input ratios range from 0.9 for teff and 1.85 for wheat through to 2.95 for maize. Corresponding output/nutrient ratios are higher but the highest reached only half of the ratio of 10 deemed efficient fertilizer use. Moreover, only five (out of twelve) value/cost ratios are greater than 2 (the highest being 3.23), the remaining are below 2. Two is widely considered the ratio on which farmer's base decisions to use fertilizer. It is sufficient to cover the other costs, including labor associated with increased fertilizer use.

IFPRI presents data for optimal levels of fertilizer use – I believe from its own calculations from NSA data on farmers' fields - that come out about 40 percent higher than actual use. In other words use can increase by 40 percent to bring use by farmers to optimal use under current farmer conditions. This is a quite low number compared to utilization in Asian countries, although fairly high by African standards. This implies that response to fertilizer is quite low under farmer conditions in Ethiopia, with huge potential to increase that response.

In an IFPRI paper by Mellor and Dorosh they use NSA data to compare fertilizer use on small farms that use fertilizer and large farms (commercial operations many times the size of small farms.) In essence this compares farmers with contacts that give them complete access to improved seed, fertilizer, technical knowledge and finance with small farms much more constrained on each. Fertilizer use was about at the same rates on wheat and 25 percent higher for maize on the large farms compared to small. The large farmers obtained a 20 percent higher yield on wheat and a 50 percent higher yield for maize. The latter reflecting the effect of better access to hybrid maize and the 25 percent higher rate of fertilizer application as well as better knowledge about fertility practices. These data confirm that improving access of small farmers to knowledge, inputs and finance, comparable to that of large farmers offer considerable scope for increased use of fertilizer and increased profitability.

ISSUES/QUESTIONS

1. What is the level of profitability, and of use of fertilizer if the optimal level of use and set of practice (compost level, mix of urea and DAP, liming, timing, placement and etc.) are followed?

2. What is the difference in use and profitability between the small commercial farmer and those with smaller holdings? What is the implication to the requirements for further rapid growth in fertilizer use?

3. What are the barriers to achieving the optimal set of practices, particularly for the small commercial farmer in the assured rainfall areas?

Fertilizer Issue 3: What is the Role of Lime?

Many of the soils of Ethiopia, particularly in the adequate rainfall areas, are acid. Amongst other effects, the uptake of nutrients, particular phosphorus is reduced. Acidity may explain the unusually high levels of phosphate use by farmers even compared to local recommendations. If that is the case it is urgent to provide lime on a large scale.

Ethiopia has deposits of limestone that need to be developed on a large scale. Farmers the world over rarely apply lime at the most profitable level or even at all when faced by market prices. That is because it is a very bulky commodity with consequent high costs of application. This is particularly true in low mechanized agricultures. Even urban people can understand that carrying and distributing ten or more tons of lime per hectare is a huge task. In addition lime provides its return over a several year period, in contrast to urea for example in which essentially all the return comes in the first cropping season. As a result of these two forces governments have found it socially profitable to heavily subsidize lime applications. The other critical public action is continued rapid building of all-weather roads. Lime will not be used on farms that are not on all-weather roads.

ISSUES/QUESTONS

1. What is the aggregate requirement for lime in the assured rainfall areas and what is a reasonable time span for achieving that level of use?

2. What should be done to accelerate development of lime deposits? Where will the capital come from?

3. What role can the private sector play?

4. What is the time span for complete coverage of assured rainfall areas with roads?

5. Should lime be subsidized and at what rate? Cover all transport cost, including those of the farmer herself?

6. What research, test plots are needed for lime?

7. What special training for extension agents.

8. What is the role of cooperatives in lime distribution?

Fertilizer Issue 5: What is Required for Soil Testing, Making Use of it, and the Time Horizons?

In the short run soil testing can be valuable in improving practices with respect to Urea and DAP, the bulk of present fertilizer use. Much of that can be simple tests carried out by trained extension agents. That is simplest for testing for soil acidity and defining liming levels. At the next stage getting the mix of urea and DAP right for specific conditions and in spotting trace element deficiencies that can to an extent and for some elements be dealt with by heavy applications of compost.

In the long run potash may become limiting, as well as trace elements. For that sophisticated soil testing is needed. Though fertilizer growth may be rapid in the short run, developing adequate soil testing labs and moving that to utilization by the extension service and providing the right complex

fertilizer takes time. Experience elsewhere, confirmed by preliminary discussions in Ethiopia is that it will take in excess of five years to get the sophisticated system in place and substantially shifting the mix of fertilizers used.

There is widespread experience of premature introduction of mixed fertilizers with the result that the mixes are not optimal for the majority of famers and hence the cost per unit of nutrients actually needed is greatly increased. This has been far more of a problem in Africa, where the shift to mixed fertilizer has come earlier than in Asian countries that stayed with the basics of urea and DAP to much higher levels of use. Much is made of the need for trace elements – but a vigorous, successful program on organics will meet a wide range of the trace element needs. Thus, caution is needed in this effort, even though in the long run it has potential. Related to this, expansion in soil testing as planned can help greatly increase productivity of DAP and Urea by getting the right proportions of these for each situation. The focus groups show farmers are generally far from the optimum mix.

It is notable that in India, at present, 85 percent of all nutrients provided from inorganic sources are still from Urea and DAP, despite development of fairly widespread soil testing capability. This high percent is in part due to subsidy policies that favor these two nutrients and particularly urea. Likewise in the US Urea and DAP (plus anhydrous ammonia) still dominate fertilizer tonnage.

ISSUES/QUESTIONS

1. What is the time span for full coverage at required intensity of soil testing throughout the assured rainfall areas?

2. What is the time span for lifting the technical capacity of the extension service to use the soil testing results?

3. How can soil testing be used in the short run to increase efficiency of DAP and Urea?

4. How will the marketing of mixed fertilizers be tuned to micro differences in requirements?

5. What scope is there in the short run for use of soil testing kits by extension agents?

<u>Fertilizer Issue 5: How much future growth potential is there in just Urea and DAP?</u>

Specifically, can the profitable use of Urea and DAP be doubled from the present levels and hence the growth rate more than doubled in the immediate five year period while more sophisticated approaches are being implemented to maintain that growth into the future?

This question has three parts.

a. The area not receiving fertilizer. The IFPRI study shows 60 percent of farmers do not use fertilizer. The proportion of area covered would of course be much larger than the proportion of farmers using. Since IFPRI shows that over time the use per hectare by those using fertilizer has changed little, one can assume that, given the increase in the past two years, now less than half the farmers do not use fertilizer. Use will be more widespread in the high potential areas of AMDe. Perhaps it is reasonable to assume that 20 percent of the cropped area in AMDe's 83 Words is not fertilized. Thus on the order of one-fifth of the increment in use could come from expanding the area covered and four-fifths from increased applications on land already fertilized i.e. doubling the use on that area.

b. Rate of application on the area receiving fertilizer. Given the modest scope for increased area fertilized, the quantity used by farmers using fertilizer must double in the next five years. The IFPRI study shows a low level of fertilizer use per hectare of land that is fertilized (not divided by total arable area, but on that that receives fertilizer). That is 66 kg fertilizer materiel (about 30 KG of nutrients) on wheat and 56 Kg (about 25 Kg of nutrients) on maize, with that level not changing significantly over ten years. India now uses 124 kg of N plus P per hectare on wheat (and only 6.9 Kg of K after many years of very high yields.) Urea and DAP still dominate total fertilizer use. That is N and P are provided at five times the rate in Ethiopia –mostly from Urea and DAP, with negligible amount of K. (Note that the focus groups stated use of 100 kg of materiel (about 50 kg of nutrients) with perhaps one quarter of farmers applying 150 Kg (roughly 75 Kg of nutrients) – but even that is only 60 percent of the level used in India.

c. Thus a target of doubling the use of Urea and DAP under roughly current conditions in the next five years seems reasonable. However, given the conditions dealt with in other issues it would seem that the following are needed:

    a. Intensive focus by research and extension to raise productivity of Urea and DAP, including increasing use of compost.

    b. Major improvement in the efficiency and reach of cooperatives in fertilizer distribution to be fully competitive with private traders (see below).

    c. Private traders, ready to go on a large scale, to return to fertilizer distribution to bring competition, efficiency, and faster growth.

ISSUES/QUESTIONS

1. What is the current level of use of Urea and DAP by the small commercial farmers (1 to 5 hectares) in the assured rainfall areas and what is the potential level for profitable use? Does this allow a doubling of use.?

2. Would lime have a major effect on profitability in the assured rainfall areas?

3. What improvements are needed in the research/extension system to drive the high growth rate targets for organic fertilizer?

4. What is the coverage of the cooperatives in fertilizer distribution – what percent of the small commercial farmers reached?

5. How competitive are the coops with the private sector and what is needed to increase competiveness?

6. What are the constraints to private sector entry?

<u>Fertilizer Issue 6</u>: <u>How effective are the Cooperatives in fertilizer distribution? Is there a supply constraint?</u>

What change in the coops is needed to achieve the growth targets?

The performance of cooperatives has been improving, with little complaint from farmers now, as compared to a few years ago, about untimely delivery (focus groups.) However, the ATA report on cooperatives indicates large scope for improvement in performance, with a program for providing that improvement.

However, there are widespread reports from researchers working on other topics of difficulty of farmers in getting fertilizer – including the need for multiple trips to the cooperative to obtain fertilizer – presumably tied to lack of a professional manager and convenient reliable hours of operation. The focus groups showed a mixed experience with obtaining fertilizer from coops. Perhaps the poorer experiences are with cooperatives without paid managers. The growth rate over the past 10 to 15 years has been around five percent, indicating problems of delivery.

The Coops do about 10 to 20 percent of the grain marketing. The IFPRI studies show a clear favorable effect on reducing margins as they come into competition with the private traders. The coops at present do nearly all the fertilizer marketing. It is the latter that requires priority emphasis on increasing efficiency and access.

ISSUES/QUESTIONS

1. Within the assured rainfall areas what percent of the area is covered by cooperatives delivering fertilizer?

2. Of the above what percent of the area is covered by cooperatives with a paid manager and easy, known accessibly- i.e. high level of convenience.?

3. What problems and how widespread (proportions) do the cooperatives encounter in expanding fertilizer distribution? (Focus groups indicated deficiencies in warehouse capacity, finance)

4. What are the elements of a program to rectify any deficiencies stated above? Time to complete coverage in assured rainfall areas?

5. Can coops benefit from ties to the extension system? How close can those ties be? How are they built?

<u>Fertilizer Issue 7:</u> Is there a role for the private sector in fertilizer distribution?

More specifically, how would large scale entry by private grain traders assist in achieving the targets and how prepared are they to enter on a large scale? Most of the following is based on the focus group meetings with farmers, cooperative leaders and private traders.

The focus groups of private traders make the flowing clear. They have substantial experience from a few years ago with fertilizer distribution – they talk very knowledgably about various aspects of fertilizer distribution. They would like to get back into the business. They show an in depth understanding of the market and how to deal with it. They have ample warehouse capacity and working capital. Thus they are ready to go immediately. They are in agreement that they could as a group quickly get up to 100, 000 to 200,000 tons of distribution per year – a sizable addition. With coops simultaneously increasing their efficiency this could be largely incremental to what the coops do.

There is an anomaly. It is generally stated in government circles that the private trade can enter fertilizer distribution and that that is a recent change in policy. The private traders clearly believe that

they cannot get licenses for fertilizer distribution. Perhaps the difference arises from the private traders not having tried for licenses in the very recent past.

We are pursuing the specific constraints, but it appears that the government needs to send a clear message through the licensing system that those traders who meet the normal requirements should be licensed to distribute fertilizer. In addition they need to be assured of openness of AIC to sales to private traders on the same terms as the cooperatives. There may be other problems that we are working on. Opening to the private trade will assure that the supply system will not be constrained in the shift to 15 percent growth rates in fertilizer use.

It needs repeating here that the existing capacity of the Coops is large and can also grow. It needs to be developed through massive technical assistance. Given the role of the coops it may be necessary to have a large scale program for increasing their efficiency and coverage to be sure they are fully competitive with the private sector. Cooperatives have a major advantage over the private sector in a loyal customer base and farmer belief that they are more honest. However that can be overbalanced by rectifiable program deficiencies as stated above.

It is notable that the private traders state that their advantage over the cooperatives was primarily due to substantially lower transport costs. The analysis below shows these as the dominant element in fertilizer gross margins. This is an issue that should be pursued further.

In monetary terms the expansion of private sector provision of fertilizer will dwarf all other agribusiness aspects of AMDe. The fertilizer agribusiness sub-sector alone would provide an additional over $200 million of activity. Of that a good estimate would be that the Cooperatives would add about ½ of the increment ($100 million) and the private traders the other half ($100 million.) (The incremental agricultural output would be on the order of $0.5 billion, much of it marketed.)

The $100 million managed by the private traders would most likely be incremental to what the coops do – i.e. without the private traders that $100 million increment will not occur. Thus at the end of the period the coops would be doing about 75 percent of the distribution and the private traders 25 percent. This presumes a major upgrading of the efficiency of the cooperatives. These figures are for the whole country. For the 83 AMDe/AGP Words it would be necessary to calculate the percent of initial use and production in those Woredas and similarly for the share of output from the AMDe/AGP value chains. Note that NSA data show close to three quarters of all agricultural output comes from the high rainfall areas. If AMDe covers half of this, then AMDe would be responsible for half of the above.

ISSUES/QUESTIONS

a. What are the real/imagined constraints to entry of the private grain trader's into large scale fertilizer distribution and how can that be dealt with? Obtaining licenses? Obtaining supplies from AIC? Other?

2. How can there be assurance that the coops are able on a national scale to compete effectively with private traders?

3. Can the private sector benefit from ties to extension?

Fertilizer Issues 8 – Is Credit a Significant Constraint to Rapid Growth in Fertilizer Use?

The credit issue was raised in all the focus groups. Farmers generally expressed a need for more credit. However, it did not seem to be a major constraint to their use of fertilizer. Women's groups did express poor access and that lack of credit was a constraint to their use of fertilizer. The cooperative focus groups showed widespread credit provision – to a much greater extent than general statics show. The grain traders generally expressed a capacity to use their borrowing power to provide credit to farmers, although this seems less likely under present constrained lending by the commercial banks.

From overall knowledge and experience in other countries we conclude that the credit constraint is significant but that view is not supported by the focus groups.

Ethiopia is unusual among fast agricultural growth countries in not having a large scale specialized agricultural credit system.

ISSUES/QUESTIONS

a. What percent of fertilizer in assured rainfall areas is sold on credit? At what interest rate?

b. What proportion of fertilizer sold by cooperatives is sold on credit? On what terms?

c. What proportion of small commercial farmers (1 to 5 hectares) use sub-optimal amounts of fertilizer, and how much lower, because of the credit constraint?

d. What can be done to increase the flow of credit to cooperatives/private traders for fertilizer purchase?

Fertilizer Issue 9 - Is Timely Delivery of Fertilizer a Constraint

The focus groups indicated that is not a problem now, even though it

was a few years ago. In effect the AIC and the cooperatives have solved that problem.

ISSUES/QUESTIONS

a. Is timely delivery sufficiently institutionalized as not to recur in the future?

Fertilizer Issue 10 – Is the Price Differential Between the Port and the Farmer a Constraint?

The issues of marketing margins and price spreads are complex. Fortunately a recent careful World Bank study provides definitive answers to the question for the cooperatives. The simple answer is that margins are in line with costs and comparisons with other countries. The argument for improved operation of the cooperatives and for entry of private traders is based less on the need to reduce large margins than to rapidly expand access. Of course management training, and competition will bring some reduction in margins. The dominant element in margins is transport, at each stage of the process. Private traders manage considerably lower transport costs. That is an issue that should be examined for cooperatives. It is notable that a recent IFPRI study shows that in the past ten years the price of diesel fuel has increased by 60 percent, but, the cost of transport has been reduced by half. That is a measure of the major change in the transport sector particularly massive investment in roads.

ISSUES/QUESTIONS

a. Why are transport costs lower for private traders than cooperatives and what can be done to reduce the costs for cooperatives?

Because the analysis and the data are valuable for other purposes as well as dealing with the margins issue the World Bank presentation is presented in substantial part, as follows:

I. Fertilizer pricing.

1. Base. For equity reasons, an average handing-over DAP and urea price was determined for each central warehouse on the base of all tenders/lots and average offloading, bagging, transportation and other costs. This price also includes 12.85 ETB to compensate for 2008/09 left-over stocks (for DAP and urea) to be sold at the same price as 2009 imports: the unions will be compensated for financial losses due to higher 2008 import prices but also storage costs. The calculation of the unified price for Addis Ababa Central warehouse has been performed as follows[4]:

Table 6: Cost build-up for the newly imported fertilizer (ETB/quintal in Addis Ababa)

Cost component	**DAP** (ETB/Q)	**Urea** (ETB/Q)
CFR price[5]	592.47	404.85
Clearing and transit	3.10	3.10
Quality control	1.19	0.81
Transportation from Djibouti port to central warehouse[6]	64.61	64.61
Unloading at central warehouses	1.50	1.50
Bank interest	5.21	3.71
Bank service charges	7.41	5.06
Insurance	1.17	0.80
Administrative costs	0.75	0.75
Re-bagging	0.05	0.05
Spillage	1.83	0.96
Compensation for left-overstock of 2008	12.85	12.85

[4] See details about the price calculation in Annex 3 (Source MoARD – in Amharic)

[5] The average DAP price (CFR) for 2009 is US$510.75 per ton versus about US$710 per ton in 2008; the equivalent prices for urea are US$349.00 per ton in 2009 and US$420 per ton in 2008. At current exchange rate of 11.6 ETB/$US, the average 2009 CFR prices for DAP and urea are 592.47 ETB and 404.85 ETB respectively. The 2009 CFR prices are, in US$ terms, on average 28% and 17% lower than during the 2008 season

[6] The current freight rates charged in Ethiopia are 0.8 ET Birr per ton km (US 7.18 cents) for general cargo, 0.75 ET Birr per ton km (US 6.73 cents) for fertilizer, while WFP gives a rate of 0.94 per ton km (US 8.44 cents) for the movement of food grains. These rates are very similar to the rates quoted in the rest of East/West Africa.

Total cost to bring to Addis Ababa (ETB/quintal)	**692.14**	**499.05**

2. The AISE hand-over prices for fertilizers at different central warehouses have been determined as follows, taking in account the adjustment of transport according to distances:

Table 7: AISE hand-over prices for fertilizers at respective central warehouses (off-loading included)

ETB/ Quintal	Nazareth	Addis Ababa	Shashemene	Modjo	Kombolcha
DAP	686.32	692.14	704.78	688.09	678.38
Urea	493.23	499.05	511.69	495.00	485.29

Source MoARD, 2009

3. Union selling price. Unions provide for central warehouse storage, uploading, insurance, transport to their central warehouse or directly to primary cooperative warehouse. Price composition are as follows (on the basis of the Nazareth warehouse handing-over prices)

Table 8: Price build-up for cooperative unions (sale price to primary cooperatives).

Item	DAP			Urea		
	Bahir Dar	Bure	Deb. Markos	Bahir Dar	Bure	Deb. Markos
Nazreth price	686.32	686.32	686.32	493.23	493.23	493.23
Storage Central Warehouse	10.76	10.76	10.76	10.76	10.76	10.76
Up-loading	1.50	1.50	1.50	1.50	1.50	1.50
Transport	77.15	50.90	47.50	77.15	50.90	47.50
Downloading	1.50	1.50	1.50	1.50	1.50	1.50
Financial Cost	5.76	5.76	5.76	4.40	4.40	4.40
Other costs /b	2.01	11.26	1.66	1.46	2.71	1.11
Profit	5.0	5	5.0	5.0	5	5.00

margin[7]	0	.00	0	0	.00	
TOTAL Union	**790**	**773**	**760**	**595**	**570**	**565**
AISE price /a	*767.30*		*738.25*	*573.80*		*544.75*

/a: Source: AISE Bahir Dar (valid for gross sales to primary cooperatives or larger scale users)[8]

/b: Per diem for warehouse employees, spillage, losses, insurance, etc. For Bure (Damot union) about 10 ETB/quintal are included to compensate for transport costs to more distant primary cooperatives (partial sharing of transport costs between member primary cooperatives).

4. Primary Cooperative selling price to farmers. Primary cooperatives add their specific costs on top of the union selling price. Main complementary costs are: uploading/downloading[9] (3 ETB), transport costs (road/boat[10]) from the union warehouse to primary cooperatives and overhead /profit margin (2.5 to 6 ETB for Oromia and Amhara respectively) [11]. The price formation process at primary cooperative level has not yet been fully concluded and only indicative price are available.

5. The high willingness of farmers to purchase fertilizer by cash payment was recorded by the mission in the high potential areas visited: in zones with lower agricultural potential (e.g. Eastern part of Amhara which are under Productive Safety Net Program), down payments of 40-60% of the sales value are accepted while the remaining is provided on credit to be repaid at harvest[12]. The output/input price ratio seems to be similar to the last agricultural season, as both input and farm gate output prices decline against 2008. However postharvest farm-gate prices for the 2009 meher season are yet unknown.

Price 'equity'. During the 2008 season, large price differences were observed following the respective importation period: earlier imports yielded significantly lower prices than late imports, and prices differences were reflected by each importing union to its clients. For 2009 a uniform basic price principle was adopted across all fertilizer imports, providing a base for equity between farmers, although in-country transport costs, efficiency of storage/distribution, profit margin, etc. induce substantive price differences between zones. Furthermore, some unions (e.g. Damot/Amhara) level

[7] In Oromia the profit margin, including overhead costs has been fixed by the regional bureau of Agriculture at 2.5 ETB/Quintal at union and primary cooperative level. According to union managers this level of overhead/profit margin would induce losses on input operations and not allow for the development of other activities promoted by the unions and primary cooperatives.

[8] AISE mainly engages in whole sale of fertilizers, supplying primary cooperatives/unions, large scale farming operations (sugar, tea, etc.), research institutions, etc. It has reduced to a large extend its detailed selling activities by reducing the number of sale centers from 600 to 90.

[9] If transported from the union warehouse. Incase primary cooperatives are supplied directly from central warehouses the uploading/downloading at union level is discounted.

[10] E.g. around lake Tana (Bahir Dar).

[11] The margin is either 'recommended' by the regional BOARD (Oromia) or negotiated between stakeholders within the regional/zonal input coordination committee (Amhara).

[12] Even in high potential areas in Oromia farmers are delaying their purchase, hoping that a credit based solution would be proposed by the regions/unions (Woreda Debra Zeit)

partially out the largest differences in transport costs between close and distant primary cooperatives by proposing a closer range of ‘averaged’ input prices to their primary cooperatives.

ANNEX V. FERTILIZER USE, POLICIES, STRATEGIES AND THE LATEST DEVELOPMENTS IN THE FERTILIZER SYSTEM, TESHOME LAKEW

1- Fertilizer use and Potential Demand in Ethiopia

Ethiopian farmers traditionally use fallowing, crop rotation, farmyard manure and some form of compost to improve soil fertility. These traditional practices used to maintain soil fertility have been gradually reduced due to high population pressure and limited availability of cultivable land. The use of manure to add organic materials to the soil is also hampered by the increased use of dung and crop residues as a source of energy (Setotaw et. Al.,2000). Thus, in order to restore plant nutrients to the depleted soils provision of chemical fertilizer to farmers has been one of the major activities of the extension programs in Ethiopia. Since the inception of the agricultural extension program in Ethiopia, promoting the use of chemical fertilizer has been the major work of extension personnel.

Inorganic fertilizer was first introduced to Ethiopia following three years (1967-69) of simple fertilizer demonstration carried out by the government with the assistance of Food and Agriculture Organization's (FAO) Freedom from Hunger Campaign. The objectives of this program were to create awareness among the smallholder farmers on the use of inorganic fertilizer, to conduct field trials to determine optimum rate of application and to define sound policies, strategies and institutional set up that would help introduce efficient fertilizer distribution system. The crops under trials were cereals and the introduced inorganic fertilizers were DAP and Urea (Techane, 2002). Since then, the application of chemical fertilizers has gained popularity and consumption of the two types of fertilizers (DAP and Urea) has increased tremendously. Accordingly, the total consumption of chemical fertilizer has increased from 107457 metric ton in 1993 to 550,000 MT in 2011 (Table 1).

Although the total consumption of chemical fertilizers has shown an increasing trend, its actual per hectare application by farmers is very little due to various institutional, economic and physical factors. For example, the amount consumed in 2011 converts to only about 0.47 kg per hectare of area under the major crops in that season. This shows that the current level of fertilizer application is too little to support a sustainable yield increase. Hence, the major challenge facing the country has remained how to increase fertilizer consumption necessary to attain a sustainable increase in yield (GTP target).

More than 90 percent of all fertilizers is used by smallholder farmers and the balance 10% is used by private commercial farms, state farms and research centers. Four regions together (Oromia, Amhara, SNNPRS and Tigray) accounted for more than 90% of the total fertilizer consumption of the country.

As evidenced by annual sales volume ,only **15 to 20%** of the fertilizer is consumed in the short rainy season (BELG) starting from February through March, while **80 to 85%** of the average annual sales is consumed during the main season (MEHER) starting June to September. Consumption of fertilizer is insignificant in September and virtually nil between October to January. Fertilizer application under irrigation is also insignificant, though some improvement is observed in recent years.

There is a wider gap between the estimated potential demand and the actual annual consumption of chemical fertilizers in Ethiopia. The potential demand for fertilizer in Ethiopia can be calculated by multiplying the area under annual/temporary crops (crops receiving more than 90% of annual fertilizer used) by the existing application rate recommended by the national extension program (i.e. 100kg of DAP and 100kg of Urea). According to the CSA data for the year 2010/11, the total area under temporary crops for private peasant during the main season was about 11.8 Million hectares. Multiplying the above figures and adding 10% allowance for state and private commercial farms, the

potential demand for chemical fertilizer in Ethiopia is estimated at about 2.6 million metric tons. This shows that there is a wider scope to convert the potential demand for fertilizer to effective demand in Ethiopia, as the current highest record of fertilizer consumption in the country is 550,000 metric tons only (21.2% of the estimated potential demand).

There is no domestic production of inorganic fertilizer in Ethiopia. Chemical fertilizers are imported from abroad in the form of Di-Ammonium Phosphate (DAP) and Urea. Recently the foreign exchange required for fertilizer import is allocated by the National Bank of Ethiopia (NBE) from the government treasury (fore instance in 20011/12 NBE has allocated USD 581.5 million for fertilizer import for the season.

2- Fertilizer Policies and strategies

Against the background of limited scope for increasing the area under cultivation, diminishing soil fertility and population increase at the rate of about three percent, the Government of Ethiopia saw the use of chemical fertilizer as one of the fundamental pre-requisite in the achievement of its goal of food security in Ethiopia. In order to create an enabling environment for the fertilizer sub-sectors and to make it instrumental in achieving the national goals of food self-sufficiency and food security, the government issued a comprehensive National Fertilizer policy in November 1993 with the following goals.

- Promotion of farmer's effective demand for fertilizers;
- Ensuring adequate supply of fertilizer through domestic production and import;
- Effective fertilizer marketing through the private and public sector and cooperatives;
- Developing an appropriate pricing, subsidy and credit systems;
- Strengthening of agricultural research and extension services; and
- Undertaking measures to protect fertilizer quality and the environment.

In order to achieve the above mentioned goals, the national fertilizer policy encompasses the under mentioned main objectives:

- promoting competitive fertilizer marketing system,
- developing farmers ’effective demand for fertilizer,
- ensuring that fertilizers are available to smallholders in the required quantity, product mix, at a time needed and at reasonable price and,
- Provision of the necessary support to the national research and extension system to generate packages of technologies (National Fertilizer Policy, 1993).

The policy envisages that distribution and marketing will be made more efficient by encouraging the private sector to participate fully in the importation, distribution, wholesale and retailing of fertilizer to promote competition and efficiency in the fertilizer market. Moreover, farmers’ service co-operatives will be promoted, organized and encouraged to participate in fertilizer distribution.

The national fertilizer policy also gave rise to the establishment of the National Fertilizer Industry Agency (NFIA) in 1994 to strengthen the institutional aspect of the sector and to better coordinate activities aimed at the development of the fertilizer sub sector. With the objective of putting a systematic coordination of agricultural inputs in place, the National Agricultural Input Authority (NAIA) was established by Proclamation. During the restructuring of the agricultural sector institutions in 2004, NAIA was dissolved and its duties and responsibilities were transferred to the Ministry of Agriculture with the objective of better coordinating and guiding the input sub-sector under big umbrella.

Since the inception of the National Fertilizer Policy, the Government of Ethiopia has taken important measures towards the liberalization of the fertilizer market. Notable among these measures include:

- The deregulation of the fertilizer retail price, which took effect in January 1997;
- Withdrawal of the government subsidy for fertilizer in the same year;
- Issuance of fertilizer manufacturing and trade proclamation in 1998; and
- This government concern has continued and the government issued fertilizer Import, Transport and Distribution guideline in 2006 with the main objective of creating a system that ensures timely supply of fertilizer at a competitive price to smallholder farmers. The guideline clearly outlined duties and responsibilities of each key stakeholder in fertilizer marketing.

Though, the participation of the private dealers in the fertilizer business is not as expected due to various reasons, since the inception of the National Fertilizer Policy

- Annual fertilizer supply has been secured
- Consumption was annually increased, though it is below the GTP target.
- Under weight and quality problems are improved;
- Extension and research system is strengthened; and
- Farmer's organizations come into the picture of fertilizer import and distribution, and hence small holder farmers get fertilizer on time at accessible places and relatively less prices (1.5-2% profit margins as compared to 5-10% margin for Indian cooperatives, 6-7%, 2-10% and 7-14% for agro dealers in Kenya, Tanzania and Malawi, respectively. (Insights on Agro-dealer programs in Africa and possible implication for Ethiopia, ATA confidential draft report, 2012).

3- **The process of Fertilizer Demand Estimation**

The approaches and procedures of assessment of the fertilizer demand in the country emanates from the overall fertilizer system prevailing in the country along with the key actors involved in the system. After the fertilizer policy demand for fertilizer has been assessed following bottom up approach starting from kebele to national level and it is done ten months before to get time for procurement, import and distribution to sales centers on time. The demand at woreda, zone, region and national levels are adjusted based on trends in the previous years and development plans.

The actors in the demand assessment are public experts from Kebele level (development agents) to Agricultural Inputs Marketing Directorate of the Federal Ministry of Agriculture.

Under the current fertilizer demand assessment system the whole task of fertilizer demand assessment is done by the Ministry of Agriculture experts from the development center to federal levels. The participation of fertilizer importers/distributors in fertilizer demand assessment and promotion task is generally weak.

The time when the demand is assessed is critical as information required to reveal demand is normally dynamic and depends on the time of the year (season). Information about the weather condition that will prevail during the production seasons is normally determined as the time of assessment is closer to the season. Even though, the weather forecasting capacity in the country is increasing from time to time, it application in crop production in general and fertilizer demand assessment in particular, is still in its infant stage. Similarly, information on market conditions for the produced crops is available generally after harvest. These factors normally require the time of demand assessment to be as close as possible to the production season. However, the time required for fertilizer procurement, import and distribution forced the actors to estimate the demand about ten months ahead. Due to this in most of the years holding high left over stock is common. Thus, Applying better demand estimation techniques that consider factors influence fertilizer demands shall be employed.

4 – Foreign fertilizer procurement process:

After demand estimation and upon securing the required foreign exchange for fertilizer import, the fertilizer procurement operation has to go through the following steps, which normally takes from three to four months till the first fertilizer shipment reaches the country. The steps are:

- Preparation of bid document,
- Tender floating
- Bid opening, evaluation and award notification for the successful bidder,
- Supply contract signing between the importer and the supplier,
- Essential documents preparation and L/C opening by the importer.
- Follow up shipment, unloading at Djibouti port, transport and store arrangement.
- Etc.

Evaluation of offers includes:

- Technical specification,
- Price,
- Documentation (bid bond, various certificates), and
- Shipment terms and quantities

Procurement Option:

- **Open tender** -International Competitive Bidding (ICB) (no short listing of suppliers and single supplier selection)

Shipping and Logistics:

- **25,000MT**or above (in most cases) - to obtain economic of scale in on shipment.
- **Bulk with bags**- to reduce the relatively high labor cost of bagging at the supplier's country.
- **C&F liner out** – to avoid demurrage risk

Inspection:

- Both at loading and unloading ports.

Delivery:

- About 95% direct delivery- vessel to trucks, to avoid additional port charges due to the keeping of the fertilizer in the stacking area.

5. Fertilizer Marketing Channels

In the past, several institutional reforms have taken place in fertilizer promotion and marketing in Ethiopia, from 1970 to 1984 various agencies namely. Agricultural and Industrial Development Bank, Agricultural Inputs Marketing Services (AIMS), and Agricultural Marketing Corporation (AMC) handled fertilizer procurement and distribution. From 1985 up to 1992, the whole activity of import, distribution and retailing of fertilizers was monopolized by the parastatal Agricultural Inputs Supplies Enterprise (AISE).

Following the national fertilizer policy, six private importers/distributors joined the public parastatal that is AISE. These were: Ambassel Trading House, Guna Trading House, Ethiopia Amalgamated Limited, Fertiline Private Company, Wondo Trading Company and Dinsho Trading Company. As a result, the share of private companies in the total import increased from 19% in 1995 to 52% in 2000. Similarly, the share of private importers/distributors in the total sales of fertilizer increased from 19% in 1995 to 69% in 2000. At early period of the fertilizer market reform (1993-1996) many private wholesalers and retailers were also attracted to the fertilizer business and their number was more than 2,300 in 1996. However, the number of importers, wholesalers and retailers has dropped since 1999. Currently the participation of private retailers in fertilizer marketing is very limited. Even if they operate they act informally and deal with small quantities. These private dealers run other businesses besides retailing fertilizers (NFIA 2001).

The major reasons of the decline in the number of private dealers could be shortage of working capital, lack of fertilizer business know-how, competition from importers in fertilizer retailing, seasonal nature of the fertilizer business and hence unattractive profit margin compared to other businesses (Techane and Mulat, 2000, NFIA, 2001).

Similarly some private importers have ceased participation in fertilizer marketing due to various reasons. Studies sponsored by the World Bank and conducted by consultants in 2001 and 2005/06 have indicated that the private importers were not comfortable with the existing fertilizer procurement and distribution system. First, the import procedure was too long (it takes up to seven months) and hence makes Ethiopian markets unattractive to foreign suppliers: second, 100% counterpart fund that has to be deposited during the opening of Letter of Credit (L/C) is found to be very expensive to importers, as the fertilizer business requires huge capital and third, there was no level playing field in some local authorities were alleged to favor regional based companies.

Due to the above-mentioned problems and reasons associated with the entrepreneurial capacity of each importer the share of private importers in the total fertilizer import declined to 20% in 2005/06. On the other hand the share of agricultural cooperative unions came in to the scene of fertilizer import in 2004/05 with the main objective of ensuring timely fertilizer supply in the right quantity and at a reasonable price to their member farmers. Presently with the exception of one public enterprise and few private dealers the fertilizer import and distribution task is handled by cooperative unions (95%).

Currently the importance of agricultural cooperatives has obtained high recognition by the government of Ethiopia due to the fact that cooperatives can enhance farmers' group bargaining power to withstand unfair trading practices and there by contributing to the improvement of agricultural input and output marketing. These objectives can be realized if these cooperatives are competitively operating in the market compared to other private and public participants. The existence of other competing market participants (private and public) is very important for creating a competitive market environment. A competitive market environment gives farmers the freedom to buy inputs from the sources that supply in the desired quantity, timely and at a reasonable price, in fact this require strong regulatory work from the government side.

Based on the discussion with the stakeholders and review of previous studies it is noted that there is no problem with the fertilizer policy of the government. The problem may lays on the implementation of the policy at the grass roots levels and calls for close monitoring by the government for taking remedial actions to fully realize the objectives of creating a competitive fertilizer marketing system.

The existing fertilizer-marketing channel comprises 1 public enterprise and many cooperative unions as importers, wholesalers (farmer's cooperative unions) and retailers (farmer's primary service cooperatives and few private dealers).

There are more than 8000 primary cooperatives that are distributing fertilizer to their member farmers. Farmer's service cooperatives mainly distribute fertilizer on cash and credit basis to their member farmers. Apart from the participants mentioned above, the federal and regional governments are also involved in providing facilitation services including demand forecasting, credit guarantee, provision of training and information to market participants, coordinating transport operations etc.

The federal government among other things consolidates regional demand and makes foreign exchange available to importers. The regional governments mainly provide facilitation service through the agricultural bureaus, departments and development agent in the area of, demand assessment, and follow up timely distribution of fertilizer. In addition, they guaranty the input credit delivered by banks to farmers.

6 – Latest Development in the fertilizer supply system.

- **Combined Fertilizer procurement** – Since 2009/2010 cropping season, the government made a decision to import the total annual import requirement through one represented company/union in one or two tenders. This is mainly decided to get price advantage from economics of scale both from combined fertilizer purchase and port to central warehouse transport arrangement. In this arrangement every year one company is elected by the other importers to buy fertilizer on behalf of others and hand over the fertilizer at agreed central warehouses.

- **Reducing the dependency of small holder farmers on regional government guaranteed credits** – Recently regional agricultural bureaus are working to reduce the dependency of farmers on regional government guaranteed credits, in this regard;

  - ❖ encouraging capable farmers to buy fertilizer and other inputs on cash ;
  - ❖ strengthen rural saving and credit cooperatives and micro finance institutions, so that they can give input credit for farmers ;
  - ❖ Encouraging the introduction of new credit products like weather index insurance in sample woredas/Kebeles.
  - ❖ Etc… are the major initiatives which are currently under way.

- **Promoting the use of organic fertilizers** – Recently the extension system is strongly promoting the use of organic fertilizers and scaling up best practices.

- **Train Agro dealers** - In collaboration with COMESA Regional Agro-input Program fertilizer dealers and cooperatives were trained in agricultural inputs marketing fields, and input dealers **accreditation criteria** are developed.

- **Conducting trials on new fertilizers** – To introduce new (other than DAP and Urea) fertilizers in to the country trials are under way in different agro-ecologies.

- **Treating acidic soils with limes**- To increase the return from fertilizer use in acidic soils recently treating acidic soils with limes is getting attention and implemented mainly in the four high fertilizer consuming region. For this, lime mills were established in representative sites.

- **Developing Crop and soil specific fertilizer recommendation**- Soil calibration and mapping is under way to come up with soil and crop specific fertilizer recommendations.

- **Preparation of Agricultural cooperatives sector development strategy** – To strengthen the participation of cooperatives in input output marketing a five year cooperative development strategy was prepared by ATA. This strategy applies the experiences and lessons of both the country and international best practices relating to cooperative enterprise promotion, while responding to perspectives raised by stakeholders within the cooperative movement itself, the government, the private sector, and civil society. In particular, the strategy aims to address government's special development goals to improve smallholder farmers' productivity and income by leveraging a cooperative enterprise.

Table 1

1. Fertilizer Consumption/Sales (1993-2011)

MT

YEAR	**DAP**	**Urea**	**Total**
1993	90109	17348	107457
1994	170000	20000	190000
1995	202312	44410	246722
1996	209883	43269	253152
1997	168623	51808	220431
1998	193395	87976	281371
1999	195345	94919	290264
2000	197345	100562	297907
2001	181545	98057	279602
2002	155941	76329	232270
2003	157955	106394	264349
2004	210837	112105	322942
2005	224819	121735	346554
2006	251156	124561	375717
2007	259020	129121	388141
2008	265768	138988	404756
2009	278239	148437	426676
2010	352309	201576	553885
2011	350233	200345	550578